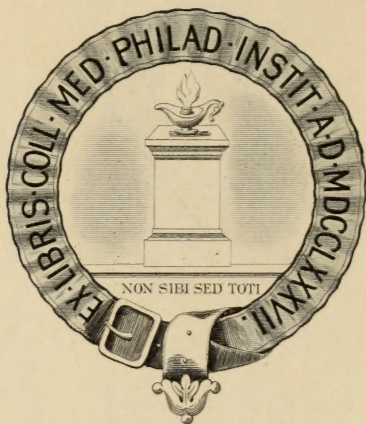


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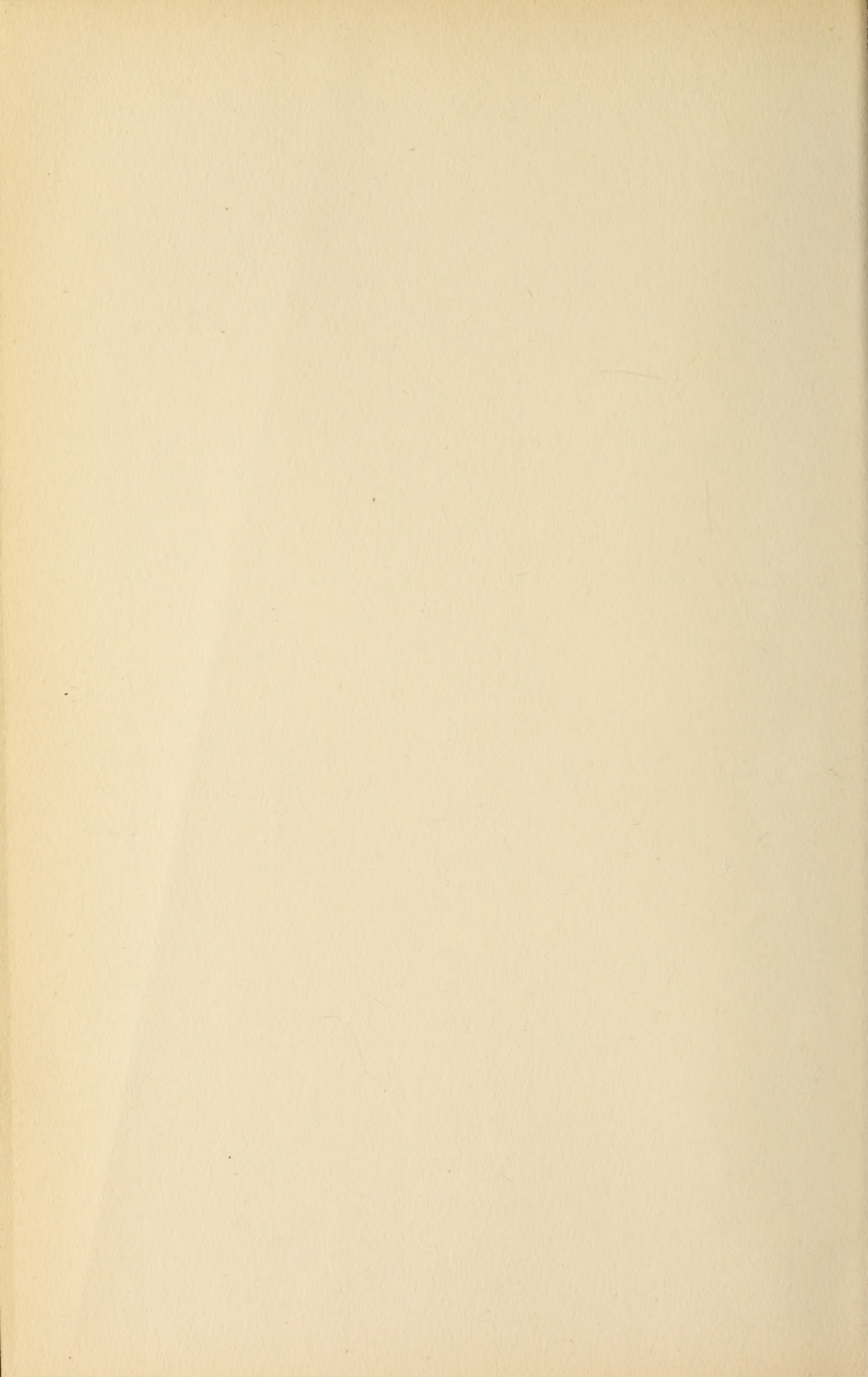



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CLARENCE BARTLETT, M. D.

ASSISTANT EDITOR: G. HARLAN WELLS, M. D.

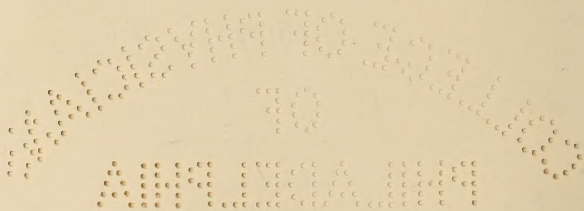
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WM. B. VAN LENNEP, A. M., M. D., WM. C. GOODNO, M. D.,
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1907.

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THE HAHNEMANNIAN MONTHLY.

JANUARY, 1907.

METABOLISM IN CHILDHOOD.

BY

C. SIGMUND RAUE, M. D.,

Clinical Professor of Pediatrics, Hahnemann Medical College, Philadelphia.

(Read before the Homœopathic Medical Society of the County of New York, November 8th, 1906.)

AN accurate conception of the subject of feeding in childhood pre-supposes an understanding of the metabolic processes that take place in the growing organism. Here we have to deal with a phase of metabolism, which, if encountered in the adult, would be of a pathologic type; for the child is utilizing every element of its food and accumulating a large percentage of its daily intake in the form of stored-up energy and new tissue. In other words, it has not yet attained nitrogen equilibrium and its demands for heat and energy-producing foodstuffs are relatively high. Although the infant gets comparatively little exercise, still there is relatively more loss of energy to be compensated for; this is largely expended in the form of the glandular energy necessary to digest and assimilate the large quantities of food consumed, and we must also bear in mind that there is proportionately more loss of body-heat owing to the fact that the body surface of the infant is greater as compared with the body volume than in the adult.

Metabolism in early life, therefore, presents its own problems for study and investigation. One of the first clues to an understanding of the subject was a study of the chemical composition of the foods upon which the infant best thrived

and developed in a normal, regular manner. It was found that the milk of the mother contained exactly those elements of food which it is necessary for the adult to get in his dietary, in order to maintain a normal state of health. These foodstuffs are proteid, fat and carbohydrate, each one playing an important role in the process of metabolism, and not one of them entirely interchangeable with the other, not even in pathological states of metabolism. It was also learned from these chemical investigations why infants fed upon unsuitable substitutes for mother's milk, particularly upon proprietary foods, developed serious evidences of malnutrition, and even certain diseases. But in spite of the many brilliant investigations and discoveries of recent times, there are many problems still unsolved. Numerous important clinical observations are well known to us, however, and the prevention and treatment of certain of the abnormal conditions closely related to disturbed metabolism, while based on purely empirical grounds, are nevertheless most successful.

My chief aim in this paper will be to bring out certain facts bearing especially upon the chemical composition of the various foodstuffs entering into the child's dietary, and to show how disregard or non-recognition of these facts results in sad failure, as far as the nutrition is concerned. Also how the treatment of any such disorder of nutrition must always be primarily dietetic.

Going a step further, we find that the prolongation of the nursing period beyond the normal limits is followed by disturbances quite as noteworthy as those observed in infants artificially fed upon unsuitable food during the sucking period. Here, again, we must recognize that the requirements of normal metabolism undergo periodic variations, dependent upon the varying needs of the organism at different stages of its development. If we view the various diet-lists published in the literature from this standpoint, we will see on close examination that many of them are nothing more than arbitrarily constructed menus. Those based upon good clinical experience have proved empirically correct. The theoretical ones are incorrect and those who try them will meet with failure.

Let us return to the subject of breast-feeding. The reason why this mode of feeding proves so eminently successful up to the eighth or ninth month is because of the perfect adjustment of the food values that are demanded for this period of

infancy. The proper proportion of water, inorganic salts, available proteids, fat and carbohydrates are daily supplied in amounts sufficient for the needs of the organism, the danger of overfeeding being smaller also than in artificial feeding, owing to the physical effort necessary to suck the milk from the breast. Furthermore, there are a number of elements that are not to be found in the ordinary substitute foods which give to raw milk its distinctive value as a food; these elements are no doubt destroyed by the process of sterilization and dessication to which artificial foods are usually subjected, or they are so altered as to make a decided difference in the nutritive value of the food. Furthermore, mothers' milk contains lecithin, which is not present in cows' milk to any appreciable extent. The vital, life-giving principle attributed to milk fresh from the breast has been looked upon as supposedly due to the presence of antitoxic and enzyme-like bodies. The inorganic salts are also present in the form of highly organized combinations; that is, albuminates of these salts. Phosphoric acid combinations are also present, but not in the sense of the ordinary inorganic phosphates. The amount of iron present in woman's milk is insufficient to meet the demands of the organism, as Bunge has pointed out, but unless lactation be abnormally prolonged, there is stored in the liver of the newborn a sufficient surplus of this element to meet the requirements up to the end of the nursing period.

Before entering into a discussion of the foods suitable for the weaning period, it will be well to review briefly the results that have been achieved by the investigators in the field of metabolism in childhood.

First of all, while proteid, fat and carbohydrates are the foods mainly to be taken into consideration in the study of metabolism, nevertheless, there are a number of other elements to be considered, a neglect to furnish which in the dietary is followed by evil effects upon the child's health. This is particularly the case during the period when the milk diet is strictly adhered to or some substitute for milk. Later, when mixed feeding is begun, the danger lessens, for solid foods are as a rule complex and furnish a great variety of proximate principles; even though the percentages be far from right, still there is the possibility that one food will compensate for the deficiencies of another. But even with the advantages of a mixed diet, there is the possibility of serious malnu-

trition showing itself. The adjustment of the various food elements in proper proportion and amount is nowhere more essential than in the growing organism; it is especially in the pediatric branch of internal medicine that we encounter the extreme degrees of malnutrition and the pathological states traceable to abnormal metabolism.

The food requirements of the organism are expressed in Calories, and we know fairly accurately just what the requirements of the organism are at different ages and under varying conditions of rest and work. These data have been worked out by such tireless investigators as Voit, Pettenkoffer, Rubner and others, and in children the investigations of Cammerer, Czerny and Heubner are especially notable. As has been said before, the food requirements of the infant are relatively high, the reasons for which have already been suggested. Expressed in Calories, the "energy-quotient," as Heubner calls it, we find that a young infant requires one hundred Calories for every kilogram of body weight. This energy quotient gradually decreases with the growth of the child. Thus at ten years there are needed 60 Calories pro. Kg. of body-weight (Cammerer). and for the adult forty-three Calories pro Kg. (Voit). The Calorie is the unit of heat, and refers to the heat-value of the food. To be more explicit, it represents the amount by weight of a given food required to raise one kilogram of water from 0° to 1° C., when the food is burned in the calorimeter. As the process of oxidization enters so largely into the process of metabolism, this method of estimating the nutritive value of foods has proved eminently satisfactory.

The normal adult requires 440 Calories of proteids, 940 Calories of fat and 1,670 Calories of carbohydrates, a total of 3,050 Calories. The quantity by weight of these foods which corresponds to the number of Calories mentioned is as follows:

Proteids, 110 gms.,	440	Calories
Fat, 100 gms.,	940	"
Carbohydrates, 400 gms.,	1,670	"
	<hr/>	
	3,050	"

It may be seen from the table that the Calorie value of fat is about twice that of carbohydrate and proteid, the last two

being equal. The following table represents the figures as given by Rubner :

1	gram	albumin,	4.1	Calories
1	"	fat,	9.3	"
1	"	carbohydrate,	4.1	"

Although the total of 3,050 Calories serves to supply the body with heat and energy, and will sustain the body-weight, still, unless the percentage of proteid, fat and carbohydrate be properly adjusted, metabolism cannot take place normally. In the first place, fat of carbohydrate can never be substituted for albumin, because neither of them contains nitrogen. Again, while fat and carbohydrate have a similar metabolic function in the body, they can replace each other only to a certain extent. All foods, including proteids, can supply body-heat (the law of isodynamics), but proteids alone can be utilized for the purpose of repairing tissue waste, and for the purpose of building new structures. When nitrogenous food is taken in excess, it is largely oxidized and utilized for the production of heat; this is brought about chiefly by the oxidization of the carbohydrate radical of the proteid molecule. An excess of nitrogenous food, however, is injurious in that it overworks the digestive tract and the excretory organs.

Fat is not so readily digested and assimilated as carbohydrate, nor is it so readily oxidized; it is, however, more stable chemically, and acts as the chief reserve of potential energy in the organism. There is no doubt in my mind that fat is a most essential food during the growing period and that it supplies certain elements to the protoplasm of the growing cells necessary for their normal metabolism and without which pathological states of nutrition result. A study of the etiology of rickets and of the scrofulous tendency, for instance, shows that a deficiency of fat, together with deficient proteids, plays an important role here and it is a noteworthy fact that an increase in the amount of fat in the food is followed by decided improvement in the patient's health. It may, of course, be true that fat acts simply as an albumin sparer, but the fact remains that carbohydrates which also act in this manner, even to a greater extent than fat, cannot entirely replace fat in the child's dietary. An excess of fat causes indigestion, and with this intestinal autointoxication

may become associated. Whether the acetone bodies result from the decomposition of fat in the intestinal tract, or whether the excessively rich diet simply produces a defective fat assimilation and thus acts indirectly as one of the causes of acetonuria will be discussed further on.

Carbohydrates are primarily heat producers and proteid sparsers. They are readily assimilated and the excess is stored in the liver and muscles as glycogen, in which form it acts as a reserve food that may be drawn upon at any time when the system requires an extra amount of carbonaceous food for its immediate needs. Some of the excess is also converted into fat. Fat and carbohydrates are both capable, therefore, of being held in reserve for the needs of nutrition, fat to a greater extent than carbohydrates; proteids, however, cannot be stored. The excess is known as "circulating albumin"; this is the "energy (heat) producing protein" in contradistinction to "organ protein."

A deficiency of carbohydrate in the diet is especially liable in infants to be accompanied by failure to gain or actual loss of weight. A more serious result, and one which occurs only when there is actual carbohydrate starvation, is the appearance of acetone in the urine. This is especially seen in cases of diabetes where the diet has been too rigid. The manner in which the acetone bodies are produced in the organism as a result of faulty metabolism is by no means clear. Von Noorden states that they may result from proteid cleavage due to deficiency of carbohydrates in the diet, or as a result of insufficient food in general. His views are quite applicable to the acetonuria of diabetes, but they do not entirely explain a certain class of cases that are not uncommonly encountered in pediatric practice. This latter phase of acetonuria has been much discussed in the last few years, but the problem has not been entirely solved. Krehl (*Clinical Pathology*) points out the fact that our imperfect knowledge of the relation that exists between the carbohydrates, fat and the non-nitrogenous cleavage products of the proteids makes it impossible as yet to reach a final verdict on this question.

Leathes (*Problems in Animal Metabolism*, 1906) in a critical review of the literature upon the subject, brings out the following points:

There is no strict parallelism between the amount of acetone excreted in the urine and proteid destruction. Nitrogen excre-

tion may be low while the beta-oxybutyric acid excretion may be high (Magnus-Levy). As compared with the sulphuric acid excretion there is also a lack of correspondence (Satta). Furthermore, in certain cases of diabetes, acetonuria was observed in conjunction with nitrogen retention (Weintraud). An exclusive fat diet produces a marked acidosis; this is most pronounced when butter-fat is used, as the lower fatty acids are more rapidly converted into acetone than the higher fatty acids. The relation of fats to acetonuria, therefore, is an excessive metabolism of the fats of the tissues and of the food.

Morse (*Archives of Pediatrics*, Aug., 1905) has collected some interesting data upon acid intoxication in children, and calls attention to the fact that acetonuria is commonly associated with a condition spoken of as chronic duodenal indigestion. Personally, I have encountered a number of such cases. Cyclic vomiting in many instances is also associated with this form of intoxication. Morse comes to the conclusion that the weight of evidence seems to show that the acetone bodies are not formed in the intestinal tract; nevertheless it appears beyond question that intestinal derangements (as a rule induced by a diet too rich in fats) are intimately associated with the process.

Returning to a consideration of normal metabolism, we learn from a study of the composition of woman's milk just what the food requirements of the infant are. In the first period of lactation the milk is high in proteids, and low in sugar. During this period loss of weight is the rule. Chapin's explanation of the function of colostrum, namely, to furnish nourishment in a more readily assimilable form than casein, and to start the digestive process of the intestines seems the most rational one.

When lactation becomes established, the fully developed suckling takes about 1,000 cc. of milk daily. This corresponds to 10 to 15 grams of albumin, 40 grams of fat and 70 grams of sugar. Compared with the body-weight, the suckling daily requires the following amount of nourishment:

- 3 months, 1-6 of body-weight.
- 3 to 6 months, 1-7 of body-weight.
- 6 to 9 months, 1-8 to 1-9 of body weight (Heubner).

Figuring out the Calorie-requirements of the infant on the above basis, we get the following results:

Proteids	10 to 15 grams.	41	Calories to 61	Calories
Fats	40	"	372	"
Carbohydrates	70	"	287	"
Total		700	"	" 720

In this food the fat Calories exceed those of the carbohydrates, while in the adult mixed diet the carbohydrate Calories are twice those represented by the fats. The relatively low proteid content of the food is explained by the comparatively large amount of the food taken; the easily digestible character of the proteid, and the lack of exercise at this period of life, making every bit of proteid consumed practically available for the needs of the growing organism.

Bunge (*Physiologic and Pathologic Chemistry*) has shown that the rate of growth of any young animal depends upon the amount of proteid and of phosphoric acid in the mother's milk. The following table is taken from his interesting lectures upon milk in its relation to the food of the infant.

Time in which the body-weight of the new-born animal was doubled.		Analysis of the milk of the species under consideration.		
		Proteid.	Lime.	Phosphoric acid.
Man	180 days	1.6%	0.33%	0.47%
Horse	60 "	2.0%	1.24%	1.31%
Cow	47 "	3.5%	1.60%	1.97%
Dog	8 "	7.0%	4.53%	4.93%

With the above resume of the subject of metabolism in infancy we will now be in a position to apply some of the facts to a practical (clinical) test. The most striking lesson to be learned is that in order to rear a young infant successfully it is necessary to supply it with mother's milk or an equivalent thereof. The mother's milk must be adequate in amount and its composition must approximate the standard above cited, otherwise it will be inadequate for the needs of the growing organism. The hopelessness of attempting to substitute the ordinary class of artificial foods for mother's milk, in which the proteids and fats are usually too low, this defect being compensated for by a relatively high carbohydrate percentage

is quite apparent. While children may hold their weight or actually gain weight on such a diet, this gain in fat is accompanied by a waste of the muscle tissue; in other words, the organism may be in carbon balance or retain carbon, at the same time that there is a defect in the nitrogen balance.

Again, at a certain stage, in the developmental period of the infant, after the excess of iron in the liver has been used up, the teeth begin to make their appearance, and the child's muscular system is thrown into play, the exclusive milk diet becomes inadequate for the needs of the organism and unless other food stuffs are added to the dietary the child will become anemic, undernourished and even rachitic. The etiology of scurvy is in some way associated with the prolonged use of sterilized artificial foods and a deficiency of potash salts in the food. The value, therefore, of the early resort to such adjuvants to the infant's dietary as beef juice, fruit juices and vegetable broths—especially potato, which is rich in potash, and oatmeal, rich in mineral salts in general,—becomes at once apparent.

In dieting children who are under weight, one of the first lessons to learn is that we must begin with relatively low percentages of proteids and fats, and depend mainly upon the carbohydrates as the source of heat and energy. If we remember that the glandular energy required to digest a meal is approximately one-sixth of the entire force expended by the organism we can see that an infant may actually lose instead of gain energy if it be supplied with an indigestible meal. Digestion and assimilation are so weak in these cases that many of them are unable to avail themselves of sufficient food to ward off ultimate starvation (*marasmus*).

One of the dietetic errors frequently seen in children's practice is the excessive use of fat (cream) in the diet. The percentage of fat is often immoderately increased in order to overcome constipation or for the purpose of making the child gain weight more rapidly. The primary effect of too much fat in the diet is to retard the flow of gastric juice and interfere with the digestion of the other food stuffs. Secondly it may induce acid autointoxication, as was pointed out above. When it becomes necessary to feed large amounts of fat the addition of olive oil or cod liver oil to the diet proves more satisfactory than the use of too much butter fat.

In diarrhoeal conditions milk must be withheld for a time on

account of the irritation induced by the casein curds and the rapid growth of bacteria favored by the presence of milk in the intestinal tract. When the stools are acid—an indication of carbohydrate fermentation—a proteid diet, such as albumen-water, broths, gelatin and beef juice, is to be recommended. With alkaline stools, which indicate proteid decomposition, a carbohydrate diet, i. e., barley water, arrowroot, gruels, etc., is most desirable. In marantic states, even in the presence of acid stools, the diet should be chiefly carbohydrate, as the infant cannot get its Calorie equivalent of heat energy from the proteids, owing to its feeble proteid digestion.

Rational feeding at any age or in any disease must be based upon an understanding of the needs of the organism and the manner in which food is elaborated for assimilation, the role it plays in the vital functions of the organism and the fate it ultimately undergoes as an excrement. The time for fads in dietetics is past, and the physician who starves his patients or who does not attempt to supply them with a diet sufficiently well balanced to meet the requirements of normal metabolism is doing them an unjustifiable injury.

The following summary has been appended in order to emphasize and reiterate the more important thoughts that the writer has endeavored to elucidate in this brief review of the subject of metabolism as applied to early life:

SUMMARY.—The energy quotient, that is the Calorie requirement pro kilogram of body-weight, is very much higher in infants than in adults. The food-requirements are therefore relatively high and there is danger of under-feeding children when this is not taken into consideration.

The perfect food during infancy is breast-milk, but prolonged lactation as well as a too rigid adherence to the milk diet in later infancy, is a common cause of malnutrition and other disturbances traceable to faulty metabolism.

Diet lists for children must be constructed not only upon the demands of the system for proteids, fats and carbohydrates, but they must also take into consideration a number of other substances. Among these the inorganic salts and certain unknown elements found in "raw" food are especially prominent.

While there is a certain inter-relation of the various food-stuffs and while they may compensate and act as substitutes one for the other up to a certain point (the law of isodynamics) nevertheless this applies to them only in a limited sense,

especially in the metabolism of the child, where proteids cannot be spared for the production of heat, this function falling entirely to the carbohydrates and fats. Again, any attempt to substitute carbohydrates for fat produces most unfavorable effects upon the nutrition.

THE TREATMENT OF CANCER BY A BACTERIAL VACCINE.

BY

EDWIN A. NEATBY, M. D., LONDON, ENGLAND.

Physician for Diseases of Women to the London Homœopathic Hospital, etc.
(Read before the International Congress of Homœopathy.)

THE hopelessness of the various diseases grouped together under the name of cancer has caused even the most straight-laced of medical men to look with toleration upon the inevitable tendency of patients to take up any so-called "cancer cure."

The same feeling makes the profession justly severe when a medical man allows himself to make excursions into untrodden fields and to trumpet abroad the statement that by his path and through his portal only salvation lies.

It is not without a good deal of hesitation that I have decided to bring the subject of this paper before you. There are three reasons which justify one in regarding the treatment of cancer by a bacterial vaccine as worthy of investigation.

First, it is based on an appeal to the protective forces of the body rather than on local measures only.

Second, it is in conformity with recent successful bacteriological work in other maladies and is regulated by scientific methods of precision.

Thirdly, it is believed to be another example of the far-reaching rule of similars. The treatment of a disease by its own products or secretions is not new. It has been written about by medical men for three-quarters of a century, and its recent elaboration in the form of preventive and curative vaccines is well known to you. For most of our modern knowledge on this subject the world is indebted to Sir Almroth Wright, Pathologist to St. Mary's Hospital, London. For the application of the principle to cancer our indebtedness is due

to Drs. Jacobs and Geets, of Brussels. Twenty years ago Dr. Doyen, now of Paris, described a micro-organism occurring in new growths, notably in cancer. This he named the micrococcus neoformans.

In many ways it resembles a staphylococcus, and its features may be described as follows: It has a tendency to grow in chains and to divide like yeast in a Y-shaped fashion. This is more noticeable in broth cultures. When a portion of tissue—say a cancerous gland—is placed in broth, it does not usually begin to show signs of growth for forty-eight hours. A well-marked growth occurring earlier than this is more likely to be a staphylococcus or other septic micro-organism. The colonies die easily when growing on gelatine. They are of a white color, which they maintain even when old. They stain well with Leishmann's (Romanowsky's) stain, and take Gram if young. The two most distinctive characteristics are the tenacious nature of the growth a few days old, which draws out in "vermicelli-like string" when taken up by the platinum needle; and the fact that it agglutinates with normal serum in a dilution of 200 to 500. This last feature distinguishes it from staphylococci. The role of the micrococcus neoformans in the causation of cancer is not yet settled. It has been found by Jacobs and Geets in 90 per cent. of their cases. It is more likely to be found pure in the advancing margins of a tumor or in the glands newly infected than elsewhere. Even in the last named situation it may be associated with other organisms, e. g., streptococci. In one case where an axillary gland was dissected out during an excision of breast, although fresh instruments were used and no contact with skin or fingers was allowed, a growth in bouillon took place of streptococci, staphylococci and micrococcus neoformans. The micrococcus may be found also in innocent growths like lipoma and myoma, while Jacobs and Geets report having obtained "both local and general neoplastic lesions in thirty per cent. of their inoculations." Paine and Morgan, of the Cancer Hospital, London, have only succeeded in getting inflammatory reactions. That it may be regarded as the cause of the cancerous cachexia seems certain. Even where the treatment is unsuccessful in checking the cell proliferation its effect in improving the color, appetite and weight of the patient is usually conspicuous.

The neoformans vaccine is made in the usual way, which may be described as follows:

Several tubes of agar are planted with the micrococcus and a growth allowed to take place for twenty-four hours. This young growth alone is used for the purpose. Into each tube a 1.5 sterile salt solution is poured in uncertain quantity—enough to wash off and “dissolve” the growth from the surface of the gelatine. The solution or emulsion so formed is shaken, or stirred with a sterile rod, to render it uniform.

A small portion is then withdrawn with a sterile pipette for counting, to standardize the preparation. This emulsion is counted along with an equal quantity of blood. The proportion of red blood cells per cubic centimetre being known (5,000 millions), it is easy to calculate from the relative proportion of red cells and micro-organisms in the field, what is the quantity of the latter in a c. c.

Having counted the vaccine, it is next diluted with 0.025 per cent. of Lysol to the required strength, is sterilized by heat for one hour at 60° centigrade, tested for sterility and placed in bottles or flasks for preservation.

The frequency of dose of the vaccine is indicated by the blood examination, the object of which is to ascertain the protective power of the blood serum.

The antidotal or protective substances in the blood which prepares the bacteria for consumption by the phagocytes—that is, the polynuclear leucocytes are termed opsonins. The measure of the protective power of the serum of an unhealthy individual, as compared with that of a healthy one, is termed the opsonic index, the healthy subject being reckoned as 1.

The terms healthy and unhealthy here refer to the power to resist any particular organism and for the purposes of this particular paper, the organism referred to is the micrococcus neoformans. The protective power of a patient may be high as regards one organism and low as regards another. In some instances it may be low as regards more than one, e. g., a patient may be infected by both tubercle and staphylococcus and have a low index to both.

From one to four weeks is a usual interval between the doses.

The first effect of a vaccine injection is usually to lower the resisting power for a short time—producing a so-called “negative phase” or period of aggravation. Experience has shown, however, that if the examination be made very soon—that is, within six or eight hours—a passing rise sometimes takes place, a so-called “spurious rise.” This is supposed to be due

to the absorption of a portion of the vaccine, the depression coming on only after the absorption of the whole. If this be a correct explanation, it suggests that a smaller dose would yield a rise or positive phase without the production of an appreciable fall or negative phase.

The dose usually employed is from 10 to 100 millions of bacteria. If the small dose produces a good rise it is unnecessary to go higher. Any dose which produces perceptible general reaction or illness is too large.

The neoformans vaccine has so far been used for all varieties of malignant growths. One of the most brilliantly successful cases on record was one of myo-sarcoma of the abdominal viscera. It is probable that there are great undetected differences amongst cases classed together as cancerous. It would therefore be desirable ideally that each patient should be treated by a vaccine made from his or her own tumor, the difference of strain of organisms of the same name being very great. The cases treated hitherto are too few to be advanced in strict statistical form. It must be remembered that we are dealing with cases practically always fatal and often fatal by way of a lingering, painful, if not also loathsome illness.

Any remedy which will lessen the miseries of so dire a disease, even if not cutting it short, is worthy of our thoughtful consideration.

Further, it is also noteworthy that the early cases of a hopeless disease which come for treatment by any new remedy are the refuse of other clinics and practitioners.

The largest list of published cases is by Drs. Jacob and Geets, of Brussels, the introducers of the treatment. They publish thirty-eight cases with results classified thus: Seven cures, twelve with improvement of several months' duration, eight with only temporary improvement, and eleven with no improvement.

In the *Lancet* of August 25th allusion is made to five cases treated by Sir A. E. Wright. Two had died, one was quite stationary, two showed marked improvement. Of these two, one was "a man of 75 years, and he was affected with a tumor of the left tonsil, the pillars of the fauces, the side of the tongue and part of the pharynx. Large doses of potassium iodide had no effect, and it was agreed by all who saw the case that it was malignant, and the diagnosis was confirmed by the microscope, for histologically the growth was found to be a spheroidal-

celled carcinoma. A vaccine prepared from the micrococcus neoformans was then employed. The injections were controlled by estimations of the opsonic reaction of the blood. Improvement commenced at once, the mass visible in the fauces greatly diminished, the ulcerated surface lessened in extent, fœtor ceased, and pain and dysphagia disappeared. Most of the enlarged cervical glands subsided, but one small hard gland remained. The total improvement was marvelous, not only in the local condition, but also in the patient's general health. No other treatment was employed. The result was in no way claimed as a cure, but as very definite improvement followed the treatment it is at least worthy of an extended trial."

My own cases have been twelve in number. Three of these have died. The first death was in a case of rapidly growing epithelioma of the vulva, with extensive involvement of the glands in both groins. Operation was followed by immediate recurrence, the new growth very rapidly breaking down. This patient's wound yielded a heavy growth of nearly pure bacillus pyocyaneus. She died after two injections and before I could make a pyocyaneus vaccine. The cause of death appeared to be sepsis.

The second death was in a bad recurrence after hysterectomy for carcinoma of the cervix uteri. There was relief of pain for three days after the first injection, but after that pain and vomiting remained unrelieved to the end. Involvement of omentum and duodenum took place and the growth was breaking down.

The third death was from recurrence after excision of breast. Thrice recurrent growths had taken place. When first seen the arm was swollen to the size of a big man's thigh, the neck was brawny and ulcerating, the face swollen and distorted, and the opposite breast the size and hardness of a cricket ball. She died of exhaustion after two months' treatment. The second case died after six weeks.

Two of my cases discontinued treatment because they were inaccessible; two others because it did not appear to be doing good.

A case of cancer of prostate in an old man of 82 seems to be controlled. The pelvic tumor has lessened, purulent urine cleared up, swelling of left leg disappeared, threatened obstruction of bowels ceased, lumbar glands lessened, life is being surprisingly prolonged and in freedom from pain or discomfort, except weakness, which slowly increases.

A case of rectal cancer recurring after operation improved greatly in general condition, such as strength, walking power, appetite, complexion and spirits. Hæmorrhage was checked by the injections, but the growth continued to spread. This patient had a mixed infection, for her index to bacillus coli was very high.

A case of cancer of the liver is improving in general health and the patient is less breathless, but the liver tumor remains unchanged.

An epithelioma of vulva lessened noticeably in size, but glands in the groin increased considerably.

Two inoperable cases of uterine cancer are under treatment without notable benefit. Whenever operation is possible I advise that treatment as a preliminary. It is quite conceivable that the protective powers of the blood might become equal to preventing a recurrence or controlling a slight growth, and yet be unequal to the absorption of a gross mass of diseased tissue.

The vaccine treatment must not be described as a cancer cure. It requires further working out, in connection with other vaccines.

I venture only to repeat the *Lancet's* opinion that the treatment is at least worthy of an extended trial.

THE TREATMENT OF PROSTATIC HYPERTROPHY.

BY

LEON T. ASHCRAFT, A. M., M. D.

Professor of Genito-Urinary Diseases, Hahnemann Medical College.

(Read before the Surgical and Gynecological Association of the American Institute of Homœopathy at Atlantic City, N. J., September 10-16, 1906.)

MR. PRESIDENT AND MEMBERS OF THIS ASSOCIATION :

Since the title of this paper calls for the treatment of Prostatic Hypertrophy, it is obviously necessary to discuss everything relevant thereto. Therefore, I will attempt to outline briefly, not so much my personal views, but the concensus of opinion entertained by the recognized genito-urinary surgeons of the world.

Although the treatment of prostatic-hypertrophy is essentially surgical, yet there are cases which can and must be managed medicinally and by mechanical means ; otherwise, surgery

will cause fatality or fail to relieve their symptoms. In support of this statement, I need only mention those old and enfeebled men worn out by years of constant suffering, whose very appearance argues against recovery from the shock attendant upon major surgical interference. Such men will probably live longer if their condition be treated by the catheter, intelligently employed. Again, in atonic bladders, where the obstruction is great and the bladder tone is lost, removal of the gland will not cause the bladder to empty itself. Here we must use the catheter; again, where there is from four to eight ounces of residual urine, the catheter may be used for some time before "catheter-life" (by reason of cystitis) becomes no longer advisable. The catheter, too, may frequently be used advantageously by tying it in and allowing the bladder to drain (as well as to be irrigated) for several days or a week, removing it at times and reinserting another. The catheter must not be used where its use causes a severe cystitis or where one cannot intelligently employ it; here, operation is imperative. Moreover, the catheter must not be used until the second stage of hypertrophy of the prostate or that of partial urinary retention, where there is more than two ounces of residual urine. Before this, much may be done, according to the character of the prostate, by sounds and massage, holding the condition under control possibly for a couple of years. It must be remembered that hypertrophy of the prostate does not occur suddenly, like appendicitis, requiring immediate surgical interference, but it is of slow and gradual growth, and when seen does not then, (except under certain circumstances) call for surgical interference. Every prostatic passes through these stages:

(1). Several attacks of congestion.

(2). Partial retention.

(3). Chronic congestion, and almost complete retention.

Acute retention may intervene at any time. In the first stage, much may be done by internal and mechanical treatment.

Diet, hygiene and medicine, too, play an important part. By moderation of diet, avoidance of cold, keeping the bowels open, and in acute urinary discomfort, taking internal remedies and daily hot Sitz baths, congestion may be relieved. Chronic congestion, too, may be relieved, as before stated, by sounds and massage. The catheter or operation is demanded in the second stage only. Should acute retention occur, such

must be relieved either by the catheter (tying it in until the attack is over) or by supra-pubic or perineal puncture. Prostatectomy is not indicated under such circumstances, since it is not an emergency operation.

WHEN MUST WE OPERATE?

Although I have attempted to outline the indications for non-operative treatment, I am, broadly speaking (observing the exceptions and indications previously given) inclined to advise operation when the symptoms persist after a fair and intelligent trial with the catheter and bladder irrigation.

When operation is made early, the bladder power is maintained and is easily emptied, nightly urination almost entirely disappearing.

WHAT ARE THE REASONS FOR OPERATING, AND WHAT ARE THE BENEFITS ACCRUING FROM SUCH?

This implies a knowledge of the backtelling effects on the bladder, ureters, and kidneys, since these organs become involved, either from obstruction or as a result of catheterization. It can readily be seen that the reduction or removal of the prostate provides for drainage, and gives the bladder a rest. Septic products are thus removed and the chronic toxæmia likewise disappears.

HOW SHALL WE OPERATE?

This may be answered by saying that the character of the operation may be determined by its size, its consistency, the direction of over-growth, the number of lobes involved, the complications, if any, present, and the general health of the patient. Vasectomy and castration have been weighed in the balance and found wanting. While they temporarily serve to decongest the gland, the results are not permanent. The Bottini is supposed by many to have had its day. This is due largely to the fact, I believe, that it was practiced indiscriminately. Personally, the operation was never very popular with me, and after my first one I modified it and reported it to this society, in 1900 (See "Transactions of the Surgical and Gynæcological Association of the A. I. H., June, 1900). About

two years after this, Chetwood, of New York, claimed my modification as his operation but, thanks to Carleton (Urological and Venereal Diseases), I have been acknowledged as the originator of this operation. It has its place and will always continue to in well selected cases, and in those skilled in its performance. Briefly, it is indicated in cases of contracted bladder-neck, where there is but slight median enlargement of the prostate. Here, searing of the stenosed ring and of the small offending lobe may effect a cure. It is also indicated when catheter-life is no longer possible and yet the patient is not in a condition to stand the shock of enucleation. Meyer (*American Journal of Urology*, June, 1906,) says it will relieve the sufferings of advanced carcinoma of the prostate, where enucleation is neither advisable nor indicated, and he cites Freudenburg to support his views. The mortality of the operation in selected cases is not so high as prostatectomy.

Enucleation, however, is the ideal method. The perineal route is very popular. It has the weighty endorsement (with the exception of the English) of the recognized genito-urinary surgeons of the world. A recent article by Cumston (*American Journal of Urology*, August, 1906,) outlines most clearly the opinions entertained by authorities on the subject, and I will quote it verbatim:

"From the recent papers published by Albarran, Bako, Czerny, Fergusson, Freudenburg, Goodfellow, Gundersen, Hartmann, van Hook, Horwitz, Legueu, Lichtenstern, Longfellow, MacGowan, Marwedel, Murphy, Miculicz, Nicolich, Parker, Pauchet, Pitcher, Pousson, Rafin, Riedel, Rivière, Sheen, Squier, Verhoogen, Young, and Zuckerkandl, a total of 755 cases of perineal prostatectomy have been reported, and of these 49 resulted in death, making a mortality of 6.47%. If this mortality is compared with that of the year 1902, which was reported by Burkhart at 12.1%, it at once becomes evident that there has been considerable improvement made in the operation. As regards the functional results, they are almost invariably reported as good, so that it may be fairly assumed that of those patients who survive the operation, nearly all have recovered the power of spontaneous micturition."

Quoting him still more fully:

"In considering the proper radical operation to select it appears to me that perineal prostatectomy is by far the surest manner of placing the bladder at rest, thus doing away with

the hyperæmia of the entire urinary tract, stopping the pain, bringing down the temperature and helping the kidneys. Cases are now no longer wanting in which prostatectomy has been followed by most favorable and satisfactory results in chronic retention, severe pain or an impossibility to pass the catheter, all conditions where it is most legitimate to operate. In a large number of these cases the faculty of spontaneously emptying the bladder returns, micturition is easy and the bladder may empty itself almost completely, while in the less brilliant instances some residual urine still remains, but the urine becomes clear and the cystitis disappears."

That perineal prostatectomy is indicated, too, will be seen when we recognize that the offending lobe is usually the middle one (rarely will retention or symptoms occur from lateral lobe enlargement, and it may easily be enucleated through the perineal route). This is decidedly the operation of choice when done early in the enlargement, since its mortality record is about one-half that of the supra-pubic route. I also prefer it because it affords drainage in obedience to the law of gravity, which allows water to run down, rather than up hill, which it will not do when the supra-pubic route is selected.

Although I have never failed to remove a prostate through the perineum, yet several contra-indications to its performance must be recognized:

(1). Enormous intra-vesical projections are here difficult to remove; likewise, in very fleshy men, who have a deep perineum, the operation is difficult.

(2). It should be guardedly done in the old and enfeebled, since by reason of the length of time (it requiring a longer time than the supra-pubic method) it may cause shock and a fatal result.

The technique of perineal prostatectomy as I practice it, is, in the main, the operation of Gouley, except in pre-and post-operative details, to which I may say I owe my low mortality rate. I have long since, after several trials, given up extensive dissections of the perineum for prostatectomy, such as practiced by Young and others.

The pre-operative treatment to which all of my cases are subjected, consists of resting in bed for two days, a daily cleansing bath, moderate diet, plenty of water, and the administration of urotropin, gr. five, three times a day. During this period a catheter is usually tied within the bladder and that

organ irrigated morning and evening, with a 1-4000 solution of nitrate of silver. Such usually aids in maintaining or restoring bladder contractility. When stone is suspected, or when the catheter cannot be borne because of irritation, this is omitted; rectal enemas are given daily; the night before operation the pubes perineum and scrotum are shaved and a dry aseptic dressing applied. The catheter is not removed; until the morning of operation, after the bladder has been irrigated with a saturated solution of boracic acid, a glycerine and water enema is given six hours before operation. Briefly, the patient is placed in the lithotomy position. The first step of the operation is exactly similar to that of perineal cystotomy. The incision is made in the perineal raphe, three-fourths of an inch above the anal margin, on a staff. The incision should be about one and one-fourth inches long—it is unnecessary to make a longer one. The bladder is then entered and explored digitally, the staff having been previously removed. Suprapubic counter-pressure by an assistant facilitates this procedure. This occupies about five minutes. The enucleation may then be commenced, and is best done by inserting the right fore finger in the wound, palmer side up always, and hooking the end of the finger in the right prostatic lobe. Great care must be exercised in this finger dissection, and pains taken always to have the finger palmer aspect upwards; otherwise the tissue overlying the rectum will be torn and a fistula result. The length of time necessary for enucleation depends upon the extent of the overgrowth, and the distance which it projects into the bladder. Rapidity is accomplished by suprapubic counter-pressure, and the fortunate possession of a long narrow fore finger.

Having freed the lobe, it may be removed by means of Young's forceps. The next step consists in removing the left lobe, then the middle one, or, indeed, whatever one presents—this is merely a matter of choice. My custom is usually to attack the right first. Stone, if present, may then be removed by a scoop or lithotomy forceps, Young's forceps, or if too large, crushed and then removed.

The prostate having been removed, Young's double-drainage tube is inserted into the bladder and that organ irrigated with a normal salt solution, at a temperature of 110 degrees. The wound is then lightly packed with plain gauze, and a suitable perineal pad applied, and the patient returned to bed.

Here it may be necessary to infuse, or to stimulate, but such may indeed apply to any operation and is not here a feature. It is, however, necessary to dwell somewhat upon the technique of post-operative irrigation. The apparatus which I employ is somewhat similar to Young's, but improved upon, I believe, by the mechanical ingenuity of my associate, Dr. Baer. It consists of an irrigating jar having a capacity of two gallons, to which is attached six feet of rubber tubing, on the end of which is fitted a glass nozzle. This jar is placed in such a position that its lowest part is about three feet above the patient's head. By running its outlet-tube along the side of the patient and fastening it with safety pins, connection is made with the shorter end of the tube in the bladder. A haemostat is employed to regulate the flow of solution. To the longer tube, draining the bladder, a rubber tube, three feet long (having a similar nozzle on its end) is connected; this, too, is anchored to the draw sheet. A receptacle at the side of the bed receives the fluid as it runs from the bladder through the tube. This apparatus should be in working order before the patient is entirely out of the anæsthetic. Concerning the haemostat as a regulator of the amount of solution which flows into the bladder, the first gush may confuse the manipulator, but careful watching of the same for ten minutes will enable him to tell whether the flow is too fast. The tube leading from the bladder to the receptacle under the bed may become clogged from blood-clots, either at the junction of the tube in the bladder or else at the connection of the outlet tube. In order to remedy this, several things may have to be tried. If the blood-clot is at the connection of the tubes which lead into the receptacle, take a four ounce metal syringe, and by suction, withdraw them. If this fails, then change the tube which goes into the receptacle, or, it may become necessary to stop irrigating for awhile. Throughout the irrigation, the tube leading into the bladder should be examined every fifteen minutes.

(1). Continuous irrigation should be practiced for twenty-four hours, after which it may cease. This is omitted only in the event of severe shock.

(2). The flow should be so regulated that the jar will empty itself in twenty-five minutes. This apparatus prevents the necessity for the patient remaining upon his back for twenty-four hours—indeed, he may be turned from side to side

during the procedure. It is remarkable how very little discomfort is experienced from its use; but, if present, it may be controlled by morphia.

The diet for the first twenty-four hours must be liquid. Forty-eight hours after operation the double drainage tube is removed and a single one substituted. As a rule the latter is removed within a week. Daily bladder irrigation of a 1-4000 nitrate of silver must be used so long as this tube is in the bladder. On the fourth day, the patient is propped up by means of a back rest. This is done with the view of obviating the tendency to hypostatic congestion. On the ninth day a full sized sound is passed from the meatus into the bladder. On the twelfth day the patient is usually out of bed, and on the fifteenth day nearly all of the urine is voided naturally. The perineal wound is usually healed in from four to five weeks. The remedial medicinal measures usually employed are urotropin and morphia. Shock, if present, may be combatted by giving 15 to 30 minims of a 1-1000 solution of adrenalin chloride (by mouth) every 30 minutes until reaction occurs. High saline enemas, one quart every three hours, may too be given as well as atropine 1-100 grain hypodermically, or morphine one-fourth grain plus 1-50 grain digitaline hypodermically, or strychnine 1-30 grain in one-quarter drachm of brandy.

It must not be imagined that this method of enucleation, apart from its mortality, is never associated with unpleasant results. On the contrary, according to Proust, the following complications have been quite frequently observed:

- (1). Wounds of the rectum, with their resulting fistulæ.
- (2). Frequency and incontinence of urine, and cicatricial contraction of the urethra.
- (3). Injury to the sexual apparatus, orchitis, and sexual impotence.
- (4). Residual urine is likewise at times a complication.

In the majority of my cases the only complications which I have had following have been delayed urination and epididymitis. Proust in a report of 115 cases claims 55 cases operated by the perineal route had some post-operative condition. It would appear, then, that while the perineal route is the safest from a mortality standpoint, yet it is much more liable to troublesome sequelæ.

Supra-pubic prostatectomy has many supporters, notably

Guiteras, Fuller, Lilienthal, Freyer, and his associates at St. Peters, as well as most English surgeons. The operation unquestionably has many advantages:

(1). Every growth may be removed by this route.

(2). It is especially indicated in enormous growths with marked intra-vesical projections, especially when complicated by stones.

Its disadvantages are: 1st, the associated high mortality, at least 10%; 2nd, inability to provide for drainage. This has led many surgeons to employ associated perineal drainage. 3rd, wounding of the peritoneum with subsequent septic infection resulting from urine infiltration. The complications which may follow are:

(1). Contracture of the bladder.

(2). Fistulæ.

(3). Contracture of the posterior urethra.

The technique of the operation as practiced by Guiteras (*The American Journal of Urology*, June, 1906), who is unquestionably its originator, is as follows:

(1). Full Trendelenberg posture; make the incision through the abdominal wall and bladder sufficiently long; retract enough to give the largest possible exposure of the operative field for my own and the students' benefit during the operation.

(2). Dry the bladder well; grasp the base of the prostate with bullet forceps, one blade in the urethra, the other behind the base of the gland; make a vertical incision on either side—on through the bladder wall, covering each lobe of the gland about midway between its side and the urethra.

(3). Lower the patient to a half Trendelenberg position; insert two fingers of the left hand into the rectum, to make counter pressure below while holding the gland from above. by which means almost perfect control of it is obtained, and the students can see every step of the operation.

After the gland has been removed I insert a very large, thick-walled rubber catheter, No. 38 to 40 F., into the bladder for supra-pubic drainage. The perineal drainage I have discarded, and instead I introduce the largest catheter that will enter the bladder easily through the urethra, one with a large single eye, or perhaps two eyes, which I leave *à demeure*. This urethral drainage I find exactly as good as the perineal, and it relieves the patient of an extra operation for the sole purpose of drain-

age. Such a contrivance by which double drainage can be resorted to for a few days after the operation, that is, during the hæmaturic period, is of the greatest service to the operator, as it allows him to irrigate through from above to below one or more times a day. The hot solution runs away through the lower tube almost as rapidly as it enters, thus cleansing the bladder thoroughly. I consider the advantage of this method of drainage from below better than no drainage from the lower part of the bladder, or by means of a perineal opening, for two reasons: In the first place, because it assists the drainage from above, and secondly, because it allows the hollow remaining after the removal of the gland to fill in around the catheter without disturbing the relation of the prostatic urethra to the remainder of the canal, instead of around the perineal tube, a false route, which also favors the development of a vesical perineal fistula. The upper tube is removed in four days; the catheter as soon as the upper wound heals.

The complications which pertain to these operations are: Shock, sepsis, hemorrhage, urinary incontinence, and urinary infiltration.

Personally I will always attempt perineal enucleation first, then if I fail, it is an easy task to immediately resort to the supra-pubic route.

In conclusion:

(1). Operative measures are best suited to all cases, considering the dangers of catheter life.

(2). The perineal method is still the most favorable route.

THE PATHOLOGY AND TREATMENT OF THE UNUSUAL FORMS OF METRORRHAGIA.

BY

B. FRANK BETTS, M. D., PHILADELPHIA.

(Read before the Surgical and Gynecological society of the American Institute of Homœopathy.)

THE class of cases to which attention is directed in this paper is characterized by the absence of palpable tumors or manifestations of malignant disease in the uterus and ovaries and the usual structural changes in the endometrium which so frequently cause metrostaxis after parturition, incomplete abortion or traumatism. Excluding these cases, medical practitioners meet with patients who suffer from more or less per-

sistent discharges of blood from the vagina, irrespective of the menstrual nisis, which varies in quantity from a mere spotting to a profuse metrorrhagia.

These cases are found most frequently among young unmarried females, yet those who are married, but sterile, may suffer and still less frequently those who have reached the climactic period, although a probable malignant tendency is always to be seriously considered in every case at this time of life. The increased prevalence of abortion and the too common practice of preventing conception by the use of drugs and other harmful measures account for much of the trouble during the child-bearing period.

It is a grave mistake to conclude that because of the age of such patients at either early womanhood or at the approach of the climacteric there is little in their pathology to interest us or that there is in such cases a mere perversion of function which time will rectify.

The object of this article is to direct attention to the fact that there is a pathologic basis for these cases of metrorrhagia of the unusual type and that it is incumbent upon us to diligently investigate its origin in every instance. It is only from such investigations that we are able to understand the true nature of these affections, so that we can apply the proper treatment and avoid the needless mutilation of young women by surgical intervention, as may be the case when hysterectomy is resorted to for the relief of metrorrhagia not dependent upon cancer or other new growths.

In the class of patients that I am referring to, the immediate cause of the metrorrhagia may be either local or general (systemic). In young girls persistent staining may be due to a trivial erosion of the cervix, which needs a few applications of Churchill's tincture of iodine and carbolic acid, mixed in the proportion of four to one, or there may be an inflammatory condition of the vaginal portion that needs cleansing vaginal douches and applications of ichthyol and glycerine tampons. A small mucus polypus may protrude from the os that can be removed by twisting off its attachment by means of the polypus forceps or the removal of a fibroid polypus by torsion or excisement may be required.

The first stage of uterine prolapsus (squatting) is frequently overlooked as a cause of cervical erosion and engorgement with consequent bleeding. Treatment may be

found inefficient for these cases unless means are employed to keep the uterus in position. The prolapsus will be detected if it is remembered that the fundus uteri should be felt at the symphysis by the bimanual method of examination and the finger in the vagina should not find the cervix resting low down upon the floor of the pelvis. In the treatment of such cases we take into consideration the relief of four possible etiological factors: First, pressure from above, by the elimination of tight skirt bands, corsets, etc. Second, traction from below, due to over-distension of the rectum and bladder, inefficient perineal support, etc. Third, increased weight of the organ, as in hyperplasia, and, fourth, lack of tone in the natural supports of the uterus, as is found in anemic, sedentary, impoverished women and those of lax pelvic fibre. In all of these cases regular exercise, improved blood supply with attention to the condition of the bowels and enforced recumbency for a few hours after each manual replacement and perhaps the judicious employment of the cradle pessary will be required. The application of the pessary will *not* be called for, however, if the uterus is enlarged, engorged or sensitive. Vaginal douches of a temperate solution of bichloride of mercury will answer a better purpose than the prolonged and frequent application of medicated tampons which distend the vaginal walls and weaken the natural uterine supports.

The douche is slightly astringent; it has a beneficial effect upon the vascular circulation which may be utilized to advantage by recumbency afterward. The efficiency of treatment will, however, depend very much upon the elevation of the cervical portion from its low position in the pelvis, so as to restore tone to the uterine vascular supply and musculature.

A comprehensive study of the vascular supply of the uterus is essential in the treatment of all obscure cases of metrorrhagia. Keiffer (*Zentralblatt f. Gynæcol.* No. 18, 1906) from careful anatomical study arrives at the conclusion that branches which are given off the uterine arteries pursue a spiral course through the parenchyma of the organ. The arterioles gradually lose their connective tissue covering until the smallest are in direct contact with the uterine muscle and form a dense network, presenting no visible lumen unless they are injected. In the inflamed uterus the network of small vessels presents the appearance of ampullæ. The veins have contractile coats (and according to Werth and Guasdeu the larger branches have

muscular walls) and are in direct contact with the parenchyma. These investigators conclude that the uterus is a true erectile organ, subject to marked increase in size and blood capacity under the influence of nervous, vaso-motor impulses. Inefficient muscular contraction is the cause of hemorrhage when the blood vessels fail to become compressed from either perverted nerve impulses, as may originate from emotional influences or from structural changes, causing defective muscular action, either or both of which may again originate from various causes, such as a displacement of the organ, persistent constipation, rectal disease, general impairment of circulation, cardiac and other visceral affections, as well as from vicious habits of life, undue sexual excitement or unnatural sexual function. The brain receives through reflex stimulation a varying supply of blood to meet the varied requirements in its functional action and so it is with the reproductive organs and it is well to estimate the importance of emotional influences in the treatment of many of these cases of metrorrhagia

Brooke M. Anspack, M. D., of Philadelphia, in an original article published in the *American Journal of Obstetrics*, January, 1906, says: "There is a class of cases that I have designated metrorrhagia myopathica in which the cause of the discharge lies in the uterine muscle, either as a primary disease or as a secondary lesion. The contractile power of the uterus plays an important part in the phenomena of menstruation, as it does in any hemorrhage from the uterus—illustrated in the case of labor. Metrorrhagia myopathica is a symptom immediately dependent upon an anatomical or a physiological lesion of the uterine muscles. The physiological lesion is most likely an inefficient contractile power of the uterus."

The mucus membrane may show no evidences of thickening in these cases, hence curettage does but little good. Dilation of the cervix and the relief of stenosis is called for when there is dysmenorrhœa, but in the cases referred to in this connection the latter condition is rarely present. When dilation is called for an anæsthetic may be required and after washing out the cavity with a bichloride solution, gauze packing applied within the uterus for thirty-six hours will often improve the circulation and the muscular tone of the organ, so that relief from hemorrhage follows.

The direct application of medicaments to the endometrium is now rarely required. The contra-indications for dilation

and intrauterine packing are lesions in the extra uterine tissues and malignant disease. If it seems desirable for any reason to efficiently palpate the inner portion of the organ up to the fundus in our search for evidences of malignant change, etc., it is advisable to prepare the patient for a vaginal operation in the usual manner and under the influence of an anæsthetic, pull the uterus down and cut through the posterior cervical wall at its vaginal attachment, and up to a point above the internal os, so that the finger can be freely introduced into the cavity in order to explore its condition and apply the proper treatment for the case. A few chromicized catgut sutures will be needed to close the line of incision afterward.

As sarcoma so frequently selects the fundal portion of the organ for its seat of development and as malignant degeneration of the fundal portion is obviously most amenable to surgical treatment by hysterectomy, this method of exploration as recommended by Bolt, should be instituted in all cases of metrorrhagia which cannot be traced to a definite cause by other means of investigation, and provision should be made for a complete hysterectomy at the same time should it be found necessary.

When the uterus is hyperplastic and engorged and we can exclude pregnancy and malignant degeneration, we may resort to the procedure adopted by Theilhaber (Dudley Practical Medicine Series, Vol. 2, page 24), who has demonstrated that in the inflammatory condition of the uterus it is uterine contraction that helps the venous blood to return to the heart. This authority applies a glass cup to the cervix, in which a vacuum is created by forcing out the air by means of a rubber syringe attachment and stopcock control. So that the blood is drawn to this portion of the organ for half an hour, then an interval of several days is allowed to elapse which results in absorption, and then the treatment is applied more frequently and for shorter periods, until after a five minutes' treatment the stopcock is opened for the admission of air for a full minute and thus the process is frequently repeated until the stimulation of the circulation and the increased muscular action in the body of the uterus have effected beneficial results. I have had no experience with this method, for I have been satisfied with the efficiency of Schroeder's mode of treatment for these cases, in which a wedge-shaped piece of tissue is removed from each side of the hypertrophied cervix and stitches applied to approximate the raw surfaces.

When the muscular tissue of the uterus is deficient in contractal power from an excess in the development of the connective tissue elements, the method of Theilhaber may be effectual for the relief of the hemorrhage and the development of the muscular structure. Electricity will benefit some cases and local vibratory massage and particularly general massage is indicated to improve the general muscular tone and stimulate the circulation, but Brandt's massage of the pelvic organs is not to be recommended without careful consideration in every case. Vaporization or the application of hot air or steam to the endometrium for the relief of hemorrhage seems to be no longer advocated.

The ligation of the uterine arteries by the vaginal route under strict surgical precautions is a measure to be resorted to in extreme cases when there are no indications for hysterectomy. In every case in which the procreative organ can be saved we are under obligations to do so, hence the necessity for the consideration of every available clinical method.

In the absence of evidences of a local origin for metrorrhagia we naturally look for some general or systemic cause for the trouble. It is here that the sphygmomanometer may be used to advantage to estimate the blood pressure from which, with other clinical evidences, conclusions may be drawn respecting the functional integrity of the heart, liver and kidneys, bearing in mind that low blood pressure usually precedes normal menstruation and that hemorrhage with high blood pressure is not physiological. Much valuable information may be obtained from a microscopical examination of the blood, from the ear-lobe or finger. Low hemoglobin and a small number of red cells after prolonged and copious uterine hemorrhage often indicates heart muscle degeneration. A vicious circle is developed when this degeneration increases the uterine venous stagnation, and weakens the uterine musculature so that it does not contract and help force the blood back in its course to the heart. The treatment for these cases is along the line of strict homœopathic prescribing, coupled with proper hygienic precautions and the use of local measures to stop the waste of blood from the vagina when it is necessary.

Lesions in the right side of the heart not unfrequently lead to stasis in the veins of the general circulation. Patients with continuously high arterial pressure are in danger from the rupture of an artery in any of the more vascular portions of the

body, as in the brain, retina or uterus (apoplexia uteri.) This is particularly the case if the walls of the arteries are already weakened, as in arteriosclerosis. The latter condition may be a cause for very persistent uterine hemorrhage in those approaching middle life and requires a special course of treatment usually applied to these cases. Arteriosclerosis is often confined chiefly to the larger trunks; on the other hand in a considerable number of cases, the smaller or medium-sized trunks are involved and in still other cases the changes are microscopic, involving the smaller branches.

The general causes for the unusual form of metrorrhagia, as given by Jakesch (*American Journal of Obstetrics*, January, 1906) are as follows: Chronic nephritis, heart disease, cirrhosis of the liver, typhoid, cholera, variola, scarlatina, influenza, acute articular rheumatism, hæmophilia, scurvy, syphilis (secondary and tertiary) and chlorosis. In some of these cases the use of gelatine or adrenaline may be required temporarily, but the efficiency of homœopathic treatment is never to be ignored in the treatment of metrorrhagia. Its application has not been specifically alluded to in this article, as it would thereby be made too lengthy. This important part of the treatment is available to every physician belonging to our branch of practice. An accurate knowledge of the nature of the affection under consideration will enable us to appreciate its value.

In conclusion it is claimed that persistent metrostaxis requires a thorough clinical investigation and physical examination even in young unmarried females. When no palpable evidences of a local cause can be detected, and no displacement of the uterus exists, we should take into consideration the influences affecting the vascular supply of the uterus. These may be purely emotional, acting through the nervous system and affecting the tone of the musculature or structural as when the muscular fibers of the uterus become atrophied, or when there is an increased development of the connective tissue elements or arteriosclerosis.

In these cases we can account for the inefficiency of curettage as a method of treatment.

Dilatation of the cervix may improve the vascular circulation, and muscular tone of the organ, or electricity, may be employed.

In suspicious cases the cervix should be incised through the

posterior wall, so that the finger can palpate the interior of the uterus up to the fundal portion. A complete hysterectomy should follow this examination whenever the condition requires it.

When no other causes are found we should look to the functional integrity of the heart, liver and kidneys, estimate the blood pressure and make a microscopical examination of the blood, and in all cases the efficiency of homœopathic treatment should be recognized.

UTERINE HEMORRHAGE (A SYMPTOM).

BY

JOHN E. JAMES, M. D., PHILADELPHIA, PA.

(Read before the International Medical Congress.)

THIS paper will not refer to those hemorrhages that especially belong to the department of Obstetrics, such as post partum, placenta-previa, bleeding, etc., nor will I include the "unusual forms of Metrorrhagia," as another paper upon that topic is promised.

The terms Menorrhagia and Metrorrhagia are so frequently used indiscriminately and may be indistinguishable that I prefer the title I have chosen.

Uterine hemorrhage is a symptom only, and not a disease. It always points to some systemic or functional disorder or a local lesion, hence its very great importance as a pathfinder of the pathological condition. How frequently the neglect to follow the early manifestations of this one symptom back to its source and cause has led to irreparable changes in the organs or to inoperable stages of malignancy, and condemned the woman to permanent invalidism, a suffering life or premature death, no one can tell.

Diagnosis of Uterine Hemorrhage. The line between the Physiological and Pathological in Menstruation is an unstable one. What would be a normal or even scanty flow in a strong plethoric woman might be excessive to a weak anæmic one. The same variableness exists as to the length of time the flow continues and yet be perfectly normal, to fix any definite amount or time, even to average it, is purely arbitrary. Every woman is a law unto herself; it is the variations from her own

law and the effects of such variations upon her health that constitutes the practical diagnosis of Menorrhagia.

The life of a woman is divided into three stages, girlhood, maturity, and post-maturity, and uterine bleeding has a special value and importance as it is related to each of these periods.

First. Girlhood, including young unmarried womanhood, is a period in which she is usually free from the growths, displacements, infections and accidents common to the period of maturity, with her uterine bleeding is much more frequently due to systemic diseases and visceral disorders, induced largely by a disregard of hygienic rules that apply to her person and a neglect of mental diversions and outdoor physical exercise that are essential to health and development in this period of her life, rather than to local lesions.

Some of such disorders we mention: Anæmia (except Chlorosis), in which we not unfrequently have uterine bleeding, probably due to the low specific gravity of the blood and its diminished coagulability.

Plethora in which the increased vascular pressure induces marked congestion of the parts and causes menorrhagia.

Purpura more frequently than is usually supposed is a cause of Menorrhage.

I had a case of a young woman (21 years). She was plump, healthy-looking and no other symptoms, but was a bleeder, the flow always latsing two weeks and frequently for two months without cessation and very profuse. She had been under other physicians, had been curetted under an anæsthetic three times. During the flow you could see it oozing from the os and from the cervical mucous membrane. I used several remedies, and the wool and cotton vaginal tampons, with only partial relief. Finally I gave her Lachesis, after which the flow became normal and remained so for seven months; then she gradually relapsed to her former condition.

Diseases and conditions which impede the venous circulation of the uterus and induce congestion, such as diseases of the liver, heart, lungs, spleen, kidneys, abdominal tumors, chronic constipation and displacements of uterus.

In this period the vaginal and pelvic examination should be withheld until the systemic disorders are corrected without relief of the bleeding; then only should a local examination be made and the appropriate treatment be instituted.

Second. The maturity and maternity period. This is the time of women's greatest functional and physical activity, and while the systemic and visceral diseases frequently play an important part, far more frequently the bleeding is due to local lesions, the inflammations due to infections, the various accidents of child birth, the displacements and growths that are common during this period, in which an accurate knowledge of the lesion or lesions is the imperative duty of the physician, to be acquired by careful, thorough and possibly frequent examinations.

Among the more frequent local causes producing bleeding we mention :

Inflammation of the uterus and its appendages.

Endometritis is one of the very common causes of bleeding, especially when the glandular structures are involved, resulting in hypersecretion and hypertrophy of the glandular tissue (often called granular endometritis), or when the blood vessels are especially involved (known as the hemorrhagic endometritis) ; also when the infection extends to tubes, ovaries, the para-metrium or the parametrium, the inflammation inducing excessive congestion and pathological bleeding.

Displacements of the uterus by their mechanical interruption to the outflow of blood and secretions and interference with the normal circulation, either by obstructing the venous flow or by traction upon the large pelvic vessels, induce excessive congestion and hemorrhage, but more frequently perhaps by their causing a chronic endometritis. The products of conception not completely discharged at child birth or more frequently after miscarriage, when the flow may be profuse or scanty, may be continuous or at irregular intervals, lasting for weeks and sometimes months, its early recognition and removal of cause would prevent many cases of septic infection.

Extra uterine pregnancy frequently has as its first and most important symptoms irregular bleeding from the uterus and demands an immediate and thorough examination.

Tumors of the uterus, especially the Myoma or Fibroma, when submucous or interstitial, which in their growth encroach upon the uterine cavity, cause hemorrhage from the endometrium, sometimes alarming in the amount of blood lost. The subserous variety encroaches upon the peritoneal cavity, and does not cause bleeding, the tumor itself rarely or never bleeds.

Malignant growths, though more common in later life, do quite frequently occur during this period, and bleed quite early even when the evidence of degeneration cannot be detected macroscopically. As the very early removal of the growth is the only hope for the patient, its importance as a symptom is apparent.

Third. The post-maturity period. Menopause and senility.

This is the most critical period of a woman's life. While its characteristics are cessation of function and atrophy, they do not always occur easily and regularly, but frequently manifest great irregularity in time and amount of blood flow. The great nervous irritability that usually accompanies the "change" no doubt may be the cause of a temporary increase of function and a hemorrhage or two may occur without local lesions, but when it continues, is excessive or frequently repeated some pathological change does most certainly exist, and should be found and corrected. It is little short of criminal to complacently say of all bleedings between 40 and 50 years of age it is only the "change," and allow the woman to go without a knowledge of her condition and dangers, and without an attempt to carry her safely through the "change."

It is at this period that malignant growths manifest themselves and many of the slower growing ones begin even if they may be a few years in developing, so that the Menopause is the time requiring the most careful watching for the earliest manifestation of lesions, which should be corrected at once.

Bleeding during the period of senility is almost always a positive sign of malignancy; about the only exception is the ulceration from the rubbing of a pessary, or of the cervix against the skin in complete prolapses.

Let me repeat, Uterine Hemorrhage is only a symptom, but of such paramount importance that it should never be ignored or considered lightly, to know its cause is our absolute duty in every case. It is a beacon light to guide and not to blind us.

BACKWARD DISPLACEMENT OF THE UTERUS.

BY

SIDNEY F. WILCOX, M., D., NEW YORK CITY.

(Read before the New York State Homœopathic Medical Society at Rochester, Oct. 16th, 1906.)

I HAVE been led to the consideration of this subject by the large number of cases which have come under my observation during the past two or three years. These cases have been girls or women of ages ranging from 15 to 60 years, and it is a matter for serious consideration that such a large proportion of gynæcological cases should be suffering from displacements. Sanger reports out of 700 cases 108 retroversions, or 15.14 per cent.; Winckel reports 19.10 per cent; Lohlein, 17 or 18 per cent. It is probable that a much greater proportion of uterine displacements actually exists undiscovered through the imperfect consideration of the symptoms or lack of examination of the cases. I have long since ceased to believe that symptoms which are carelessly ascribed to hysteria, nervousness, laziness or even cussedness exist without a physical cause. The tendency, especially with young people, is to be active and enjoy the pleasures of life, and when they fail to do so, or do it only under excitement or protest, it behooves the doctor to bestir himself and to ascertain whether some physical condition, such as displaced or distorted uterus, a movable kidney, an imprisoned clitoris, or some one of many abnormal conditions, does not cause the symptoms. The malposition can only be found by examination; for that reason, many cases are neglected, because either the patient shrinks from an examination or the doctor dreads proposing it in a case of a young girl; often it is the mother, who exhibits more common sense than anyone else and who, by insisting that something radical be done, carries the case to a successful conclusion. In such cases, there is always the anæsthetic, which may be used and the patient not really know what is done.

In order to give an idea of the anatomical relations of the uterus, I will quote from Pozzi.¹ He says: "The uterus is connected posteriorly to the sacrum by the utero-sacral ligaments, whose extensible and resistant fibres are attached to the organ at the level of the cervix; its connections with the bladder in front and the round and broad ligaments at the sides

preserve its normal position of slight antifixion, which it retains as a vestige of its foetal condition. Tonicity of the pelvic floor, of which the only weak point is occluded by the normal contraction of the vagina, prevents the abdominal contents from acting in the direction of their weight. The pressure is distributed over the whole surface of the uterus, and the uterus floats, as it were, suspended in the midst of the organs of the lower pelvis, which act as cushions for it. . . . When the bladder is full it pushes the uterus backward, so that its slight curve of anti-flexion is obliterated, to be restored and exaggerated when the organ is again emptied. The rectum when full pushes the uterus forward and upward in a corresponding manner, though in the physiological condition this motion is so seldom pronounced that its action is noticeable. In the case of the bladder, however, it is important, especially, as social conditions which may quickly become organic habits, exaggerate it considerably. There is but one point of attachment where the uterus is at all firmly fixed, namely: that of the posterior ligaments, and, as they are inserted where the organ is the thinnest, evidently its position may be compared to that of a pyramid balanced on its point. This paradoxical condition does not exist in the lower animals, but is an anomaly in the animal kingdom explained by the upright position of the human species. When we consider the extensive changes of volume, form and consistency which the uterus undergoes at each pregnancy, the alterations and lesions, which may be produced by parturition on the adjacent organs, ligaments, muscles and serous membranes, and finally the influence which efforts of all sorts may exert on an equilibrium so unstable, we are surprised that uterine displacements are not more frequent."

By backward displacement we understand a condition where the fundus of the uterus remains permanently backward toward the sacrum, while the cervix points forward towards the pubes. This may exist to any degree and may be accompanied by flexion of the organ.

Etiology.

First among the causes of retroversion of the uterus is placed improper management of the puerperium. Too free movement in bed after labor, too constantly maintaining the dorsal position, and too early getting up with resumption of

household duties gives an opportunity for the heavy non-involuted uterus to sag backwards. Hirst² claims that retroversions among the better classes occur more frequently from the fourth to sixth week after labor than earlier. Unrepaired laceration of the perineum, which lessens the vaginal resistance, is the most prominent single cause, especially when associated with sub-involution of the uterus, metritis, salpingitis, ovaritis and pelvic peritonitis with adhesions. Retroversion may result from cicatricial contraction of the anterior vaginal wall following severe ulceration. Where inflammatory conditions are present Goffe⁸ says: "The underlying factor of the displacement is the extension of the inflammatory process to the ligaments resulting in fatty degeneration of the musculature and loss of their tone and sustaining power"

In young people the most frequent causes are injuries and strains, especially when the bladder is full. Many patients become so accustomed to having the bladder distended that they do not notice it as an inconvenience, and, when a full bladder becomes habitual, the uterus may be in a backward position so much of the time that a retroversion ensues. If at the same time the patient wears a tight corset and meets with an injury, chronic retroversion is certain to result. I believe that young women who have been unaccustomed to gymnastic exercise and who, on going to school or college, take up active gymnastic work, such as rowing, basket-ball, foot-ball, golf and other games, are very likely to acquire retroversion of the uterus, unless great care is observed. Masturbation is also a cause.

Results:

Persistent retroversion may result in endometritis, and formation of adhesions. Interference with the circulation may produce a varicose condition of the pampiniform plexus which later produces prolapse of the ovaries and tubes. Sterility is the rule.

Symptoms:

Occasionally retroversion exists without symptoms and the malposition is discovered accidentally. I have seen two such cases recently, although one of them stated that a feeling of heaviness which she had always experienced, and which she supposed was natural, had disappeared when the uterus was put in the proper position.

Hirst² gives as "the typical subjective symptoms of retroversion, backache aggravated by exertion, or prolonged standing on the feet, a feeling of weight and bearing down in the pelvis, dysmenorrhœa menorrhagia and leukorea." The leukorea is milky and purulent in character. Other symptoms are headache, especially in the occipital region, running down the back of the neck and spine and sometimes pain down the thighs. There may be irritability of the bladder, dysuria, digestive disturbances, constipation, hemorrhoids, general lack of energy and listlessness. Nervous symptoms may develop to a marked degree. These may be vertigo, numbness of the lower extremities and increased frequency of the heart beat. Ashton⁹ says: "A large number of so-called cases of nervous prostration or neurasthenia which cause chronic invalidism and general debility are due to posterior displacements of the uterus." He should have added that in a large proportion of these cases nephroptosis enters as a causative factor.

When an examination is made it should be bimanual with one hand on the abdomen above the pubes and one or two fingers of the other hand in the vagina or rectum. A diagnosis should be made between a retroverted and a retroflexed uterus, fibroid tumors on the posterior wall of the uterus and hæmatocele or prolapsed ovary in Douglas' cul-de-sac. A hard fæcal mass in the rectum should be looked out for and it may be necessary to pass a sound into the uterus to make the diagnosis certain.

Treatment:

The treatment is at first directed to the reduction of any local inflammation which may be present. The medical treatment is confined mostly to conditions, which either contribute to or result from the retroversions such as endometritis, ovaritis and pelvic inflammation.

The writers of our school (Guernsey¹⁴, Cowperthwaite¹³, Wood⁶, Hale¹⁰, Ludlum⁵ and Southwick¹²) recommend such remedies as ac., aur., ars., apis., ant.-tart., bry., bel., canth., coloc., con., lach., clemat., gels., pul., rhod., plat., lil., merc., rhus-t., thu., sabin., phyt., tereb., verat. vir.

Local Treatment:

The use of tampons may be properly resorted to both to raise the fundus out of the hollow of the sacrum and to relieve the local inflammation. As a local application I have found

nothing better than a mixture of creolin and glycerine in the proportion of ten drops to the ounce. And, following the recommendation of the late Dr. J. Marion Sims, I always use Price's glycerine and find it much more effective than the cheaper brands.

Use of Pessaries:

The late Dr. Henry M. Guernsey¹⁴, who was a strong believer in the efficacy of the homœopathic remedy, says: "The practice of applying pessaries or uterine supporters of any kind is rapidly becoming obsolete. A few years more and all these barbarous appliances, as useless and degrading as they are to the female sex, will finally be laid on the same mouldy and musty shelves with the cups, the blisters, the leeches, the lancet and the actual cautery." And he also claims that there is scarcely any remedy in the whole materia medica which may not be found useful in relieving displacements and gives in detail the symptoms for 49 remedies for which I refer you to the original article¹⁴.

Without going into the details of the application of pessaries I will simply state that the ones most frequently used are those known as the Hodge, the Albert-Smith and their modifications. As a rule, they are rarely curative except in recent cases, especially such as are accidental, but they have their place as most excellent palliative measures often giving the greatest relief to patients where operative treatment is impracticable or not desired. The late Dr. Munde¹⁶, in speaking of the action of pessaries, says: "The patient should be informed that the proper fitting and supervision of a pessary requires a certain number of interviews, that a different size or shape may be called for sooner or later, that only a careful watch over the pessary will prevent its doing injury, and that, finally, the cure of a displacement of the uterus is a tedious and difficult matter, and well worth the trouble, attention and expense which the patient may be obliged to devote to it." Finally, he says: "The pessary may be removed after a variable length of time in order to see whether a cure of the displacement has been effected. This time varies from three months to as many years. A cure may be expected chiefly in retro-displacements and in prolapse of the uterus and vagina, BUT RARELY IF THE CASE IS ONE OF LONG STANDING."

As to the cures effected by the pessary, Dr. Lohler, of Ber-

lin, could point to only four cases of cure out of 240 treated by the use of the pessary. Dr. Munde could only claim 8 cases of cure out of 403 treated by the pessary. In other words, only about 2 per cent. of the cases were cured by this method. Other authors have given better statistics and Munde admits that possibly if all his cases had been in private practice he might have had better results. I have one case which seems to be cured after wearing the pessary for over a year. Other cases where, apparently, cures had been obtained relapsed and required operation. It is a serious question whether young girls or young married women should be subjected to this form of treatment. The results are so uncertain, changes of instrument are frequently required and in some cases the parts become very much relaxed and stretched. Even though it is done under an anæsthetic, the uncertainty of the result, the long time required for the cure, and the frequency of application leads one to doubt the advisability of choosing this method as the proper one for treatment. I have always kept in mind a remark which I heard Dr. E. H. Pratt make in one of his clinical lectures. He was referring to the congestion and inflammation of the adnexa, from the venous stasis caused by the twisting of the uterine attachments. He advised placing the uterus in its proper position and fastening it there, then the circulatory functions would right themselves and the inflammation would subside.

This being the case, I think that we come properly to the consideration of the *permanent* replacement of the uterus by

Operative Treatment:

We may dismiss all methods of vaginal plastic work as useless. Shortening of the utero-sacral ligaments is strongly advocated by some writers and as strongly disapproved of by others. It is an operation of some difficulty and fraught with some elements of danger. It seems to me that in certain cases it may be the operation of choice.

The intraperitoneal methods of Wiley, Mann, Dudley, Baer and others of shortening the round ligaments will not be described because as is shown by Hirst², the point of attachment, i. e., the small end of the round ligament is too weak, also they all necessitate opening the abdomen. The methods to be described and which seem to me the best are ventro-fixation or "ventro-suspension," and what is commonly known as "Alex-

ander's operation" for shortening the round ligaments. The operations of ventro-suspension and ventro-fixation are very much alike, differing only in the method of attachment and may be considered as essentially one method and will be so considered. It seems to have originated simultaneously with Oldhausen, Worth, Kelly and others, and consists in causing the formation of adhesions between the uterine fundus and the anterior abdominal wall. The methods of the operating vary somewhat in detail. The advantages of this method are that it is easier to perform, and as the abdomen has to be opened, adhesions can be broken up, and any pathological condition of the pelvis, tubes, ovaries or appendix can be attended to. The disadvantages are that it *necessitates* opening the abdomen, and that it is not a physiologically correct operation. The operation is performed by making an incision above the pubes in the median line, inserting the two fingers or the hand into the abdomen, hooking up the fundus of the uterus, drawing it forward and attaching it by means of sutures to the abdominal wall as a whole, or to the peritoneum alone. Kelly⁴ sutures the posterior surface of the fundus to the peritoneum only above the pubes, thus putting the uterus in a state of extreme ante-version, claiming that by this means the uterus is not pressed out of position by the weight of the intestines, but rather held there by their downward pressure. Other operators sew the top of the fundus directly to the abdominal walls through the muscles, while still others depend upon the part which they find comes most conveniently against the abdominal wall, fastening it without care as to the exact portions which are brought in contact. Each man uses absorbable or permanent sutures, according to his fancy. Emmerson's method of stitching the posterior peritoneal-covering of the bladder to the anterior wall of the uterus is a good one and tends to prevent strangulation, and I have employed it in three recent cases. The attachments which at first are short, holding the uterus directly up against the abdominal wall, soon become stretched, so that the uterus resumes finally about its normal position. It has been noticed that this adventitious ligament is occasionally a source of danger in that it offers an opportunity for the bowels to become tangled about it and intestinal obstruction occur. Some operators believe that the peritoneal surfaces of the uterus and abdominal wall should be scraped or scarified before the stitches are placed. The

method of closing the abdomen depends upon what the operator believes to be the proper way. In one case in which I attempted fixation, the sutures gave way or cut out and the retro-version recurred, and I found several months afterwards, on second operation, that a round ligamentous attachment had formed between the fundus and the posterior wall of the pelvis.

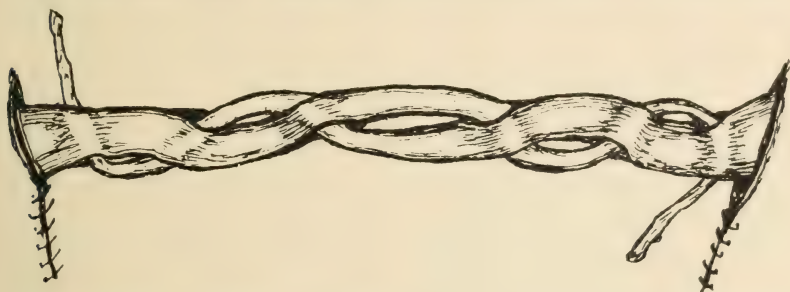
In another case where I had performed ventral fixation, the patient became pregnant and was delivered of a child at full term. Several months later on examination I discovered a complete recurrence of the retroversion.

The operation which is known commonly as "Alexander's operation" was also invented by two other surgeons. As early as November 17, 1840, Alquié, of Montpellier, in France, presented a memorial on the subject to the Academy of Medicine. Alexander, of Liverpool, made his first operation on December 14, 1881. His article was published in the Liverpool Medical Journal, January, 1883. Adams, of Glasgow, made his first operation in February, 1882, about two months after Alexander's, but he published his article six months earlier than Alexander did his in the Glasgow Medical Journal, June, 1882. Shortening the round ligaments has two advantages: First, it is physiologically correct because it brings the uterus into its natural position and nowhere else. In the second place it avoids opening the abdomen. Among the disadvantages are, it can only be employed in cases where there are no adhesions, and, of course, if the abdomen is not opened, no other pathological condition can be attended to. Also it is sometimes difficult to find the ligaments. On this account some operators have entirely discarded the operation, as Wood⁶, of Cleveland, who considers it so difficult that he declines to describe it, while Kelly neglects to mention it at all. After the patient is prepared in the usual method for operation curettage may be done if it is thought necessary and most operators advise it. The uterus should be put into position, if possible, by manual manipulation or the sound. Then the operator feels along the top of the pubic bone until he finds the spine. He makes an incision directly upward from this, from an inch and a half to two inches in length, the deep fascia and fat are divided and pushed aside until a clear view can be had of the aponeurosis of the external oblique muscle and the external abdominal ring. The ring can usually be distinguished by the direction of the fibres

and the fat puffing forward out of it. With a hook or forceps the mass of fat is raised out of the ring and drawn forward. It will probably be necessary to slit the aponeurosis in the direction of the inguinal canal in order to facilitate the drawing out of the ligament. Some operators instead of looking for the ligament at the external abdominal ring make a slit in the inter-columnar fascia about half an inch above the external ring, pass a strabismus hook down and attempt to hook up the round ligament. (See Alexander on Shortening the Round Ligament, 2d edition). I have attempted this, but have found it easier to follow the ligament up from the external ring. The ligament is usually accompanied by the genito-crural nerve, which should be pulled aside and not cut, though curiously enough Alexander, in his original work, advised that it be divided, but, as this produces anesthesia of the parts which it innervates, it is not advisable. The recognition of the ligament is often difficult, and no rule seems to be absolutely certain for finding it. One is apt to become confused and to pull on the nerve or the edge of the muscles, thinking that he has the ligament. Byford³ describes the method of distinguishing the ligament. He says that it is a round, pinkish, white and slightly mottled. That when it is pulled upon its resistance is not absolute and it does not bleed easily when torn, as do the muscular and aponeurotic edges.

Personally, I don't think there is anything so uncertain as to what sort of time one is going to have when he sets out to find the round ligament. In one early case I searched for two hours before finding it, but with more frequency of operating, I think I have gained greater facility in recognizing the ligament and seldom have any difficulty now. In only one case have I failed to find it and in that case I believe there was an anomalous attachment, as there was no external ring. When the ligament has been found it should be separated from the vein, nerve and fat, and drawn forward, making traction with great care, in order to avoid breaking it. As the ligament is drawn down, it should be held with a piece of gauze, from which it does not slip easily, while the peritoneal fold which invests it should be carefully stripped back as it comes down. If this is torn, one or two stitches of fine catgut will repair it. After the first ligament has been found it should be dropped back into the wound, covered with a pad wet in warm salt solution until the same procedure has been gone

through with on the opposite side. Then, raising up the skin and fat of the Mons veneris, the end of one ligament is grasped with a pair of sharp-pointed forceps and carried through to the opposite side, underneath the skin and fat.* Before withdrawing the forceps, the ligament which has been carried through is released, the end of the other ligament is caught and drawn back. Then we will have the two ligaments lying side by side. Before this is done, however, I generally fasten the muscular edges together with kangaroo tendon, leaving the



THE WRITER'S METHOD OF PASSING THE DISTAL END OF ONE LIGAMENT THROUGH THE PROXIMAL END OF THE OTHER.

ligament to emerge through all the muscles opposite the internal ring. It is easier to do this before the ligaments are crossed or fastened than later.

In order to make strong adhesions, I pass the small end of each ligament twice or three times, or even more, through the base of the other one, as shown in the sketch. In some cases, where the ligament is very long, I bring it back again through itself. The ligaments are then stitched together with a few sutures of kangaroo tendon. Most operators fasten the ligaments into the slit in the muscles and cut the end off short without crossing the ligaments or sewing them together. This does not provide sufficient opportunity for strong adhesions, hence a certain percentage of failures. After this the external wound is closed. I do not usually stitch the ligaments to the muscles, as it has always seemed to offer a better chance for the uterus to adjust itself more perfectly if it were allowed to hang with the ligaments, as it were, running loose over a pulley. I know of only one failure following this operation. In the case of an old woman the ligament was so soft that it

*This detail of the operation was invented by a surgeon in Chicago whose name I do not recall.

broke off in the canal, and I was obliged to fasten the uterus by one ligament alone. I have seen only one case of hernia following the operation. In one or two cases there has been some pain which lasted for a considerable length of time, probably due to pressure of a suture on the nerve. During one operation one of the ligaments broke in the canal, but I was able to grasp it, draw it out with a pair of narrow-bladed forceps. In another both ligaments, which were very thin and soft, broke and I made ventral fixation. Edebohls says where there are adhesions holding the uterus down and backward the peritoneum may be opened at the internal ring, the ring dilated by one finger, which is passed in, the adhesions broken up and the uterus drawn forward. In one case I removed a diseased appendix through an enlarged right opening.

As will probably be seen, I am favorably inclined towards the "Alexander operation" modified as described above. The general results in relieving the conditions and symptoms for which it has been performed have been so good that I feel quite justified in advising its performance in proper cases, and especially in girls or young women.

Several of my patients have passed through pregnancy and parturition without difficulty after both forms of operations. The only case in which I know of a relapse occurring after pregnancy was the one before mentioned, where it occurred after ventral fixation. I think it is more likely that a natural ligament will involute after pregnancy than an adventitious one.

In summing up I wish to make the following points:

Retroversion is a pathological condition resulting from disease, accident or negligence, and when established, may cause disease of the adnexa.

It sometimes, but rarely, exists without symptoms. It usually causes symptoms which may be grave in character.

Internal remedies are very helpful in the treatment.

Local treatment should be employed to relieve the inflammation.

Pessaries are helpful and may give great relief to the patient, but their use is rarely followed by a cure, and they are very objectionable in the case of girls or young women.

The choice of operation should always depend on the conditions present. Where it is necessary to open the abdomen ventral fixation or suspension will probably be preferred.

In uncomplicated cases I incline to the modified Alexander operation. It is more natural to hold up a person by the arms than by the top of the head.

The reason why the operation has proved a failure with some operators is that the ligaments have not been properly fastened.

I cannot leave this subject without a hint as to the frequency with which nephroptosis occurs in conjunction with retroversion of the uterus. Failure to rectify one condition without the other will lead to disappointment.

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2. A Text-Book of Diseases of Women—Hirst.
3. The Practice of Medicine and Surgery Applied to the Diseases and Accidents Incident to Women—Bytord.
4. Operative Gynæcology—Kelly.
5. Diseases of Women—Ludlam.
6. Text-Book of Gynæcology—Wood.
7. Diseases of Women—Findley.
8. The Practice of Gynæcology—Bovee.
9. Practice of Gynæcology—Ashton.
10. Diseases of Women—Hale.
11. Diseases of Women—Garrigues
12. Practical Gynæcology—Southwick.
13. Text-Book of Gynæcology—Cowperthwaite.
14. Guernsey's Obstetrics.
15. Diseases of Women—Skene.
16. Minor Surgical Gynæcology—Munde.
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18. Practical Medicine Series—Gynæcological Volumes—years 1903-4-5-6.
19. Shortening the Round Ligaments—Alexander.

THE CLINICAL AND HISTOPATHOLOGICAL DIAGNOSIS OF GENERAL PARESIS.

BY

ROBERT E. MITCHELL, M. D.

Assistant Physician, Middletown State Homœopathic Hospital, Middletown, N. Y.
(Read before the International Congress of Homœopathy.)

NEXT to those abnormal mental states which are commonly called "mania" and "melancholia," general paresis is probably best known to the profession. The sinister prognosis of paresis has had much to do with this state of affairs. Because of it an early diagnosis has long been considered of prime importance. Although the literature of paresis is voluminous and the clinical material abundant, the general profession do not seem to grasp the opportunity to perfect themselves in the diagnosis of this disease. This apparent indifference is hard to explain, especially when we think of the chagrin and loss of prestige which must inevitably come to the medical examiner from time to time. It has been urged that the busy practitioner has little time to devote to work which is generally supposed to belong to the field of psychiatry. Nevertheless most of these cases come up for consideration in the course of general practice, and it seems to me that it should be a matter of professional pride to be able to go about the diagnosis with fairly definite ideas in mind. Paresis is now of relatively frequent occurrence and if statistics are to be trusted it is becoming more common. Of the patients admitted to the New York State Hospitals in 1904, every twelfth patient, on an average, suffered from this disease.

I believe that if every examiner would start out with the idea that paresis is more of a physical than a mental disease, much of the present confusion would tend to disappear. So much emphasis is placed upon the physical symptoms in hospital practice that a diagnosis is practically never ventured unless they are found. Of course mental symptoms are usually present, but they are so variable that one is apt to be misled if he considers them alone. This is not the time to consider the symptoms of paresis in detail, however, it may not be out of place to call attention to some of the more important. It should be a part of one's routine to look for evidence of muscular inco-ordination, tremors, fibrillary twitching, pupillary changes, speech and writing defects, impaired sensation, and

to examine the reflexes. In the mental sphere, we should look for some memory defect, some loss of former efficiency, some inability to grasp the surroundings, defective orientation and poor judgment. A sense of well being, expansive ideas, delusional developments and hallucinations may be quite prominent. From the physical point of view we recognize two types of the disease, the cerebral with increased reflexes, and the spinal with absent or diminished reflexes. The mental symptoms are so varied that a clinical grouping of mental types is not so satisfactory. Expansive, demented, depressed, agitated, galloping and atypical types are described, but so often these merge into each other to such an extent, that it is hard to say which is to be given preference.

The diagnosis of paresis is comparatively easy in the great majority of cases when once the disease is established, but during the prodromal stages it is anything but easy at times. The onset varies so much in different cases that we must always be upon the lookout for it. It is often so gradual that the first warning is a convulsion, a sudden outburst of temper, a foolish business venture or some erratic act. A prolonged period of ill health has been observed prior to the acute onset, and often a gradually increasing sense of well being and general optimism is present. An indifference to business affairs, personal habits and family duties, forgetfulness, irritability without apparent cause, indulgence in alcohol and sexual excesses, are all of common occurrence. Again the onset resembles a cerebral hemorrhage and the resulting paralysis is looked upon as an ordinary hemiplegia. A hasty review of the onset of a few cases, which upon admission to the hospital were clearly general paresis, will serve to illustrate the variable onset.

Case I. A married woman of thirty, had been in poor health for about ten years, probably the result of a poorly treated syphilitic infection acquired 12 years before admission. Nine months before her health began gradually to improve. Later she declared that she felt better than she had for years. Three months before entrance her sense of well being seemed abnormal. Then she began to neglect her baby and household duties, became childish and forgetful, spent money foolishly, wandered away to the neighbors and begged for something to eat from persons whom she met. She came to the hospital readily and is now having what she terms "a nice visit" there.

Case 2. A single man of 35, who had had an "apoplexy" at the age of 27. For several years his friends considered him to be a most prolific, but an entertaining liar, because he persistently told the most improbable tales about the things he had done, the countries he had traveled and explored, and the wealth which he possessed. Although he was "shaky," drank a good deal, and indulged in sexual excesses for some months before admission he continued to be a satisfactory bridge worker until two weeks before admission, when he quit work after quarreling with his foreman. Later while still in an irritable mood he became involved in a saloon row, and literally ran amuck in the place. He was arrested for disorderly conduct and placed in jail, where he was described as "dangerous, violent and destructive." On admission, he presented a typical picture of the expansive form of paresis.

Case 3. A married man of 42, who had been a successful stage carpenter and musician up to about a year before admission, lost his position because he seemed unable to stand the physical wear and tear of his calling. He continued to play until about two months before admission when he suddenly had a slight "stroke," fell to the floor and was unable to speak for several minutes. After that his speech was "thick," he complained of numbness of the left arm and could not button his clothes well. He was relieved of orchestra work because he made discords without appearing to notice them. At home where he had formerly been kind and indulgent, he was irritable, quarrelsome, and at times violent. He developed a pronounced dislike for his little girl, of whom he had always been very proud, and would quarrel with her in a childish way.

Case 4. A married man of 42, always a hale fellow well met, had worked for 25 years as a telegraph operator on a prominent railroad, reaching a position of trust and authority. For several years prior to admission he had had frequent attacks of what was thought by his wife to be nightmare. In these attacks he would wake up suddenly, cry out, move aimlessly about the bed, and seem unable to understand what was said to him for a few minutes. He invariably regained a normal condition quickly, laughed over the episode, and again went to sleep. During the year previous to admission he had several more pronounced attacks at night. In these he was "violent and knew no one about him." About two months before coming to the hospital, owing to a policy of retrench-

ment, his position was abolished, and he was provided with a place as operator at the same salary, but he seemed unable to reconcile himself to the change. He became depressed, thought himself disgraced, made suicidal threats, was irritable at home and avoided his old friends. He grew indifferent to his new duties, later seemed unable to carry on the work, his accounts became so tangled that a man was sent to investigate them, and, while this was being done the patient went to sleep at his desk.

Case 5. A hard-working German shoemaker, of 43 years of age, was considered by his neighbors to be an unusually industrious man because, for months before admission, he worked half through the night in order to make money enough to pay for his home, which he had bought on the installment plan. Eleven days before entrance, he suddenly became "irrational in speech and action," neglected his work, abused his wife, talked extravagantly of his wealth, business affairs and future plans. He was easily irritated and became highly incensed if his expansive ideas were questioned. The day before entrance he assaulted his wife when she tried to reason with him, smashed the household furniture, and was placed in jail for safe-keeping until a nurse could be sent for him.

While most of the cases of paresis are fairly clear cut, a small percentage, probably from five to ten per cent., cause much difficulty for the diagnostician. He naturally feels unwilling to make a positive diagnosis with the implied fatal prognosis without having good grounds for so doing. On the other hand it is embarrassing to make a diagnosis of paresis and have the patient get well. A careful clinical history is often as helpful as the condition of the patient, upon examination. Let me repeat that the physical signs are all important, the mental symptoms are secondary. The majority of our patients are people in the prime of life. A large percentage of them give a history of a previous syphilitic infection.

In considering the conditions which are most likely to be confused with paresis we may begin with Korsakoff's disease, the so-called "pseudo alcoholic paralysis." This disease is probably the result of an intoxication and in the great majority of cases alcohol plays the leading role. We will look for most of these cases in hard drinkers and those who have passed through delirium tremens. The onset is comparatively sudden, at most taking but a few weeks, and often follows close

upon delirium tremens. Physically we are apt to find the symptoms of chronic alcoholism and almost always a history of or evidences of a neuritis. Mentally a memory defect, chiefly for recent events, associated with a decided tendency to fill in the gaps with fabrications is the prominent symptom. At times the patient will fabricate freely and contradict himself repeatedly without seeming to notice the ridiculous part he is taking. So great is this failure of memory that the patient is unable to carry on work that requires much thought or planning simply because he cannot remember. On the other hand, this patient will not accept any improbable statements, his judgment is rather well preserved, in sharp contrast to the paretic, and delusional developments are not usually prominent.

Cerebral syphilis is another condition that must be reckoned with. The usual type of syphilis with the formation of gummata and basilar infiltration is quite distinct. A comparatively early onset after syphilitic infection, headache, symptoms of pressure and the changing focal symptoms are very suggestive. The diffuse and strictly vascular types of syphilis are hard to determine, but as a rule I think the physical complex of general paresis is not often duplicated. As the vessels become occluded apoplectic attacks occur and sooner or later a permanent paralysis comes on. One such case which I saw recently had been considered an epileptic for many years because of occasional convulsions and a gradually progressive deterioration. A second case was supposed to have been one of cerebral hemorrhage with resulting hemiplegia. He was aphasic and very much deteriorated from the beginning. I consider the diagnosis of these cases to be one of the most difficult problems which confront the diagnostician, and for the present at least, I fear we must be content to make at least a part of our diagnoses post mortem.

The ordinary case of hemiplegia with aphasia does not strike one as likely to be confused with paresis, yet within a year I have seen such a case. The patient, a man of 57, came in with a history of an apoplexy some months before. He became unable to care for himself and was taken to the almshouse. While there he became restless, was noisy at night, soiled himself, and at times was so irritable that they could hardly get on with him. On admission he presented such an advanced deterioration that this, in addition to his speech de-

fect and apparent aphasia, made it difficult to make a satisfactory mental examination. He had a pronounced right sided paralysis. After his death, three months later, cortex specimens revealed an advanced paretic process involving the motor area. I am sure that there are other cases like this one, if we only take the trouble to search for them. I think that a routine examination of the cortex of the organic cases in general hospital practice would be most interesting from this point of view.

Cerebral arteriosclerosis brings up a puzzle occasionally. Such cases are usually past fifty years of age—the mental symptoms are not so prominent, usually a dullness, lack of interest and a progressive memory defect. Often these cases will tell you that there is something wrong with them. As you talk with them you are impressed with the fact that they have some organic brain trouble and are not particularly insane. On questioning they will surprise you with the knowledge that they have retained. The contrast to general paresis is very good. The paretic puts his best foot forward, looks as if he knew considerable, answers glibly, and the more he says the more deterioration he shows. The arteriosclerotic looks like a person in advanced dementia, sits around apparently vegetating, and does not readily enter into conversation, but as you progress in the examination the more intelligence he displays and at times he gives a surprising amount of information. In the course of cerebral arteriosclerosis we see short periods of aimless excitement, apoplectic attacks which clear up in a few days, leaving little or no paralysis, and vertigo is almost always a symptom which the patient himself complains of. General arteriosclerosis is usually present but not necessarily so.

Because seizures are common to both diseases, we must consider epilepsy. An idiopathic epilepsy arising in adult life should always be watched for a possible paresis. A certain amount of deterioration accompanies true epilepsy as a rule, but this comes on slowly and the physical signs of general paresis are not present. Probably almost all of the cases of so-called "senile epilepsy" can be accounted for on an arteriosclerotic basis. An interesting case in this connection is now under observation. The patient, a man of 26, has a marked insane and neurotic heredity. For about three years prior to admission he had "nervous attacks" resembling petit mal. A fall from a bicycle in which he struck his head was thought to have

had some bearing upon the onset of the attacks. During the seven weeks preceding admission the attacks were more frequent, and he had several periods of excitement which were thought to have been an epileptic delirium. On admission he was found to be a slender, poorly nourished man. The facial lines were washed out, the pupils were dilated and reacted slowly to light, taste and smell impaired, tremor of tongue and extended fingers, twitching of facial muscles, speech and writing defect and a marked Romberg. He complained of weakness in the back and legs, of feeling "faint and nervous." Mentally there was moderate depression, an increasing "nervousness" and speech defect so pronounced as to interfere with conversation, and the statement that he did not always feel sure of just what he meant to say. Later, it was learned that, some years ago, he contracted a venereal disease from his wife. Lumbar puncture revealed a very marked lymphocytosis. The later developments of this case are being watched with interest.

The onset of general paresis may so closely resemble neurasthenia, that I know of no way of differentiating them until the disease has progressed to where the physical signs help out. Hysteria need hardly be considered, the symptomatology and clinical course have little in common with paresis.

Occasionally the onset and early course of general paresis is quite typical of a manic excitement. Later developments must be relied upon to settle the diagnosis. The following case illustrates this: A man of 30 became somewhat depressed three months before admission over the breaking up of his home (the result of domestic trouble). Following this he had "malaria," grew thin and weak and his "hands shook." Several days prior to admission he was taken to the country where he became "flighty," talked almost incessantly and did not sleep. On entrance to the hospital he presented what was thought to be a typical manic excitement, his physical health was good. He continued in a very manic state for several months, then gradually grew quieter. About two months after entrance he had a slight general convulsion, appeared dazed for a few moments, then seemed as usual, his excitement continued. Four months later a decided failure of memory was noted and he began to drop out words in writing and drag his words when speaking. Five months later the physical signs of paresis were pronounced, mentally he was euphoric and expansive.

Similarly I have seen a case of dementia præcox diagnosed as paresis because of a sense of well being, a wealth of foolish grandiose ideas, a memory defect, poor judgment, sluggish pupils and active reflexes,—much to the chagrin of the diagnostician.

The boasting of the senile dement may need a more satisfactory explanation. Paresis does occur after sixty, but it is very uncommon. Here the senile physical complex, the nocturnal unrest, the characteristic memory defect and unreasonable obstinacy often help us out.

A most valuable diagnostic aid, and one which appears to have passed the fad stage, is lumbar puncture. This procedure has ardent advocates and outspoken enemies. Many investigators are using it as a routine. I have seen no permanent bad effects, and but little temporary discomfort from its use in quite a number of cases. So far as we know, the presence of any great number of lymphocytes in the cerebro-spinal fluid is absolutely diagnostic of some organic condition. A lymphocytosis is an early and constant finding in general paresis, but is also found in most cases with a syphilitic history. We are thus enabled to eliminate the so-called functional psychoses. Nissl has found that the albumen percentage in paresis is always over .3%, while in syphilis and other organic conditions it is under .3%. It has also been demonstrated that the spinal fluid of paretics contains a trace of serum albumen which is said to be absent from the fluid of normal individuals and those suffering from other psychoses.

When we consider the *anatomical findings of paresis* we come to a more definite field. The gross changes in the central nervous system are usually quite well marked. The brain weight is decreased, chiefly due to cortical wasting, which is often quite apparent on gross examination. The dura may appear normal, but is often more or less thickened and adherent to the pia arachnoid. A considerable exudate, at times well organized, is not infrequent and internal hemorrhagic pachymeningitis is occasionally found. The pia arachnoid is almost always thickened, often remarkably so and quite concealing the convolutions (especially over the convexity). We are told that frequently when the pia is removed it is so adherent to the cortex that it tears away the superficial layers, but I am inclined to think that it is the exception rather than the rule. The thickened pia almost always brings about dense adhesions

between the frontal lobes and binds down the temporal tips firmly. The ventricles of the brain may be noticeably enlarged. The ependyma is usually thickened, often a pronounced condition, and gives a distinct granular appearance to the surface. In conclusion: When we find a small brain, thickened membranes with adhesions and granulations of the ventricles it is always best to pursue our investigations further.

The *histopathological picture of general paresis* is quite distinct. Nissl considers general paresis to be a chronic inflammatory process, chiefly involving the central nervous system. A review of the conclusions of Nissl and Alzheimer, which have been quite generally accepted, sums up practically all that we know about the histopathology of paresis.

A plasma cell infiltration of the central nervous system is the striking feature of their investigations.

They find the pia invariably altered. This is brought about by a diffuse infiltration of the tissue with plasma cells, some lymphocytes, occasional mast cells, an excess of connective tissue, and at times capillary activity. These changes while general are most marked in the frontal regions. They are not so well marked in the early stages of paresis, are more pronounced during the active course of the disease, and are again less distinct in the cases of long duration.

The vessels of the cortex often show a proliferation of the endothelium of the intima, some degeneration of the media, and a thickening of the adventitia due to plasma cell infiltration (often very marked). These changes are present, but less marked, in other regions. In those cases running an active course there is considerable capillary activity, the sections of cortex showing a striking increase in the number of vessels. Rod cells, which are probably derived from proliferating endothelial cells, are scattered through the tissues. The vessels, both new and old, may show varying degrees of degeneration but very rarely present an endothelial proliferation so great as to occlude the lumen of the vessel.

While various alterations are observed there are no changes in the nerve cells which are peculiar to general paresis. Owing to the thinning of the cortex the cells may appear more closely packed than usual. The cell layering is often disturbed because of the increase of neuroglia and vessels, and changes in the ground substance.

The nerve fibres of the cortex show a decided reduction except in very acute cases.

There is always a positive increase of the neuroglia showing best in the outer cortical layers, about the vessels, and beneath the ependyma.

While the above changes are diffuse, they are usually found best marked in the frontal and parietal regions. The motor area is relatively free except in the cases with distinct focal symptoms. In these it is found to be as much or more involved than the other regions.

In the great majority of cases the *histopathological differential diagnosis of general paresis* is comparatively easy. According to our present knowledge when plasma cells are absent we promptly exclude general paresis. When plasma cells are present the differential diagnosis is circumscribed to rather narrow limits, and here the clinical course, as well as the gross and microscopical anatomical features help materially in the solution of the problem.

The plasma cell infiltrate seen in tubercular meningitis and in sarcomatous and carcinomatous conditions is thus easily accounted for.

An encephalitis, irregular in distribution and showing a decided plasma cell infiltration, has been found in pellagra and lead poisoning. The general distribution and progressive character of the general paretic changes are thought to be lacking in both of these conditions, but as yet have not been satisfactorily worked out.

Cortex studies in some cases of idiocy and epilepsy (on an encephalitic basis) have revealed the presence of plasma cells. A history of syphilis was not excluded in this group of cases. Here also no definite conclusions have been drawn.

Brain syphilis presents puzzles and offers an opportunity for the exhibition of real diagnostic skill. When localized, as in vascular or meningeal gummata, there is little difficulty. The picture is quite different from general paresis and in addition so far as we know, gummata have never been observed in paretics. When diffuse, as a meningo encephalitis of the brain, or the convexity, or combined and at times associated with hemorrhages and softenings, the picture may be confused. In such condition we are apt to see quite clear areas of cortex intimately associated with greatly affected areas. The pia arachnoid may show a pronounced infiltration while the cortex beneath is comparatively free. When pia and cortex are both involved it impresses one as an extension downward

rather than a diffuse process. In paresis we are apt to see several stages of the inflammatory process in the same specimen, while in syphilis but one is usually present. The infiltration of the vessel walls is not as uniform as in general paresis. Cortical softening is not common in general paresis, but quite common in syphilis. The actual destruction of cortex cells and fibres is more pronounced in paresis than in syphilis.

A third, strictly vascular form of syphilis, (syphilitic endarteritis) occasionally comes up for consideration. The larger vessels are affected (Huebner's type) as well as the smaller ones (Nissl's type), and rarely a diffuse cortical sclerosis is observed. A proliferation of the intimal endothelium which greatly reduces or actually occludes the lumen of the vessel is of frequent occurrence in syphilis while it is very rare in paresis. As a rule in paresis we find a constant but moderate thickening of the intima and a pronounced plasma cell infiltration of the adventitia, while in syphilis the intimal change is very striking and the infiltration of the adventitia relative.

I think that if we keep in mind the fact that general paresis is a diffuse and usually very chronic process which is more pronounced in certain areas, that the plasma cell infiltration is uniform and constant, that there is actually a progressive destruction of cortical elements, and that while the vascular changes vary somewhat, there is rarely a marked endarteritis, we will have comparatively little trouble with the great majority of our cases. I am sure that a reasonable amount of careful work will place the diagnosis of general paresis on as exact a footing as we hold most of the disease processes which are now recognized.

A FEW WELL-KNOWN REMEDIES THAT DESERVE TO BE BETTER KNOWN.

BY

JOSEPH C. GUERNSEY, A. M., M. D., PHILADELPHIA.

MERCURIUS CORROSIVUS.—Who among us does not know *Mercurius Corrosivus*—and yet, it seems to me, this powerful ally to the Homœopathic prescriber is often entirely overlooked in the search for a remedy to cure such urinary symptoms as “frequent urination; burning and straining in the neck of the bladder; urine scanty; urine bloody; extreme tenesmus and burning with pain in the neck of the bladder. Urethritis with a greenish discharge.” Usually the routine prescriber thinks of *Cantharis* or *Cannabis sativa* or some other remedy, any of which he duly administers, but fails to cure and perhaps even to ameliorate. Then, declaring that “Homœopathy cannot always do the work,” he flies the track and gives *Buchu* or *Saw Palmetto* in full quack doses—meanwhile his very good friend *Mercurius corrosivus* stands waiting, willing and able to cast its powerful strength into the contest and win a victory for true Homœopathy, for those who prescribe by symptoms as Hahnemann taught and according to the law of similars.

Mercurius corrosivus is useful for much besides cystic troubles. Its provings (i. e., its symptoms) present a perfect pathological picture of dysentery in its worst and severest form. In such conditions *Mercurius corrosivus* stands in the front rank, doing its best work in cases of great intensity, with much blood, and when accompanied by its characteristic urinary symptoms.

In Bright’s disease, with abundant albuminuria, it has such a wide range of cure and produces such satisfactory results, that it is rightfully regarded as one of the first remedies to think of—and probably to exhibit—in nephritis.

EUPHRASIA.—One summer, when I went on my vacation, I left among my patients a severe case of diabetes. On my return home the physician I had left in charge told me the diabetic patient had very bad eyes that would not yield to treatment; that he had unavailingly tried different remedies and now was using palliatives. I found her sitting in a darkened room with a green shade over her eyes, from which mucus and tears were plentifully pouring; eyes smarting as if sand were in them; intense photophobia—in fact, all her symptoms

presenting as perfect a picture of Euphrasia as one could possibly find. I gave her Euphrasia 40m. in water, dose every two hours, and she began to improve immediately; pain in the eyes diminished and in three days she was sufficiently better to use ordinary daylight without the green eye shade; in less than a week her eye trouble had practically disappeared *and her diabetes was much improved also!* Had the Euphrasia been given earlier the patient would have been spared much suffering.

Euphrasia is not only an "eye" remedy, as is commonly thought; on the contrary, it is one of the best remedies we have for "catarrhal inflammation of mucous membranes, particularly of the eyes, nose and frequently the throat," the discharge being abundant in amount and watery in character.

Many a catarrhal discharge from the nose, watery in character and of so irritating a nature that there is almost constant sneezing, often accompanied by cough, has been, and again can be, cured by Euphrasia. The cough seems to be caused by an *irritating catarrh* in the throat. Always remember to think of Euphrasia in all catarrhal inflammations, especially if *irritating*, of mucous membranes—particularly of the eyes, nose and throat the discharge being abundant in amount and watery in character.

OPIMUM.—Opium, in potentized form, is one of the best remedies that I know of in our *Materia Medica*, for chronic constipation. I have used it so successfully for that condition, so many times, that it is almost always the first curative agent to come to my mind when treating constipation. The chief indication for its use seems to be an entire absence of desire for a stool and not the slightest inconvenience is felt even if there is only one passage in a week. We know Opium to be a destroyer of pain and sensibility; it renders one numb to pain and that is the keynote to the Opium constipation. As admirably stated in the *Guiding Symptoms*, "want of sensibility, hardly any inconvenience is felt from accumulation of feces: absence of expulsive efforts; after abuse of cathartics; the most active purgatives have lost their power." The stools come in small, hard pieces, which are dark brown or black. Also acute constipation, caused by fear or fright. Opium, potentized, should be given insistently and persistently in all cases of old, stubborn, seemingly incurable cases of constipation, before resorting to palliatives or patent medicines.

EDITORIAL

HOW FAR DO HOMŒOPATHIC AND OTHER PHYSICIANS AGREE?

WE have all heard a great deal about the differences between the theory and the practice of physicians of the homœopathic and of the dominant school of medicine. Recently we have come to hear something about the things in which the members of the two schools agree. And strange to say, when the matter has been thoroughly discussed from both sides, we are surprised to know that the two schools agree in more respects than they differ. Probably no physician of note has been more willing to discuss this matter in an open and frank manner than Dr. Richard C. Cabot, of Boston, and while we cannot agree with him in all the propositions which he has laid down, nevertheless we have the greatest admiration for his liberality and commend his efforts to inquire into the therapeutic methods of all schools of medicine and to acknowledge merit wherever found. His address, delivered before the Boston Homœopathic Medical Society, on Nov. 1st, is a clear and fair-minded statement of the points in which the methods of practice employed by the majority of the members of the old school and the majority of the members of the homœopathic school agree, and his comments upon them are characterized by a freedom from prejudice which should be the attitude of every scientific student of therapeutics.

Dr. Cabot first calls attention to the fact that personal antagonism between individual members of the two schools has largely disappeared.

"We have learned," he says, "that a group of homœopaths are very much like any other group of physicians. In your school, as in our school, there are some fools, some fanatics and some knaves, but in your school, as in ours, there are those who are intelligent, high-minded and eager for the truth wherever found.

"We have begun to meet together for discussion both at the bedside and in scientific societies like this. We consult together and we study together."

"These are great gains attained by the growth of a spirit of tolerance and of truth-seeking on both sides. I shall not try to estimate which of the two sects has changed most. I am quite prepared to believe that we have been more in the wrong than you, and that we have receded from more false positions than you have."

The points of agreement between the two schools he then states are: First, the fundamental sciences on which the practice of medicine is based—physics, chemistry, biology, anatomy and physiology, gross and microscopic, normal and pathologic. Surgery is another branch of the physician's art upon which both agree. Hygiene and prophylaxis are taught and practiced by both alike, both being based upon our knowledge of physiology and bacteriology. He then enumerates a list of mechanical and physical methods of treatment, including hydrotherapy, electricity, massage, radiotherapy, etc., upon which the opinions of the two schools differ no more than the individual members of the same school differ. In referring to serum therapy he states that there are men of both schools who refuse to vaccinate or to give antitoxin in diphtheria, and concludes from his observations that there is no orthodox opinion among homœopaths against the use of vaccination and antitoxic sera. Some forms of serum therapy Cabot regards as undoubtedly homœopathic. For example, in speaking of the use of tuberculin, he says:

"The use of *tuberculin* is a form of vaccination which illustrates better than any example known to me the approval of homœopathic principles in our school. Tuberculin is, of course, not an antitoxin, but a toxin, and its therapeutic use is a form of vaccination. The poison of tuberculosis which can produce some of the symptoms of tuberculosis is here applied in small doses for the cure of tuberculosis through the production of immunity, or resisting power in the tissues. Surely, this is a case of '*similia similibus curentur*,' as homœopathic writers have pointed out. The use of bacterial vaccines in infectious diseases recently produced by A. E. Wright is distinctly homœopathic." (This opinion of Dr. Cabot is in direct accord with the views editorially expressed in THE HAHNEMANNIAN MONTHLY* and we are glad to know that one of the most sci-

(*Wright, for example, inoculates the human body with attenuated cultures of the bacillus typhosus, and has produced an active immunity against typhoid fever. Pasteur has done the same thing in rabies. The essential principles of serum therapy can be summarized as follows: To cure bacterial diseases we begin by bringing into contact with living cells specific pathogenetic substances (attenuated toxins) capable of producing symptoms similar to those we desire to cure. We grant that our knowledge of serum therapy is far from complete, but we believe that known facts justify us in reiterating the statement that "the basic principles of serum therapy appear to be in accord with the law of similars."—HAHNEMANNIAN MONTHLY, March, 1905. Page 219.)

entific representative of the old school has arrived at essentially the same conclusions.)

"But the revival of tuberculin therapy within the past ten years (after its abandonment in 1890) illustrates the victory of another homœopathic doctrine within our school. I mean the doctrine of the occasional utility of very minute doses. No one in this country has had so much experience with tuberculosis as Trudeau, of Saranac Lake. No one has tested so critically and cautiously the merits and demerits of this remedy. As a result of his fifteen years' experience of its use he published last August an account of his own methods, and in a recent letter to my friend, Dr. John B. Hawes, Jr., he has amplified and reiterated his statements in a most interesting way.

"What dose does he use? Not the 10 milligrams often employed in the early nineties—not even the one milligram or one-half milligram recommended later. At present he begins his treatment in febrile cases with 1-10,000th of a milligram and in febrile cases with a 1-100,000th of a milligram. This 1-100,000th of a milligram, when injected under the skin in a centimetre of water and absorbed into the circulation, becomes diluted about 5,000,000 times by the body fluids. Hence we imagine the original milligram of tuberculin acts in a dilution of 1-500,000,000,000! What fixes this dose? Precisely the homœopathic principle, namely, to produce a definite good effect without any observable ill effects.

"Of course, I do not mean to imply that we have already reached an agreement as to the proper dosage of all, or even of very many, remedies. But we have now observed the occasional utility of very minute doses, and you have long since admitted the occasional benefit of very sizable doses. In principle, therefore, we already agree. It remains to work out the multitudinous details of the application of these principles.

"We sometimes follow the maxim, '*Similia similibus curentur*,' but not often. You sometimes follow it, but not always. We strike at the cause of the disease and remove it whenever we can find that cause. So do you, whenever you are convinced that it is a cause, as with intestinal worms, or head lice. Those of you who are convinced that quinine kills the malarial parasite in the blood just as a vermifuge kills an intestinal parasite in the gut, use quinine for malaria, just as we do.

"We have come round to your minute doses in some cases, and there is no knowing how much further we may go. You on the other hand, are not tied down to minute doses, but are quite ready to use larger doses when better effects are obtained thereby."

In referring to what he speaks of as another cardinal tenet of homœopathy—the single remedy—Dr. Cabot thinks there is no doubt but that it is preferable to use one drug at a time whenever possible. He condemns the frequent mixing of drugs as commonly practiced by the old school, though he is of the opinion that drugs may be successfully used in combination in special cases.

In referring to some of the factors which have tended to keep the two great schools of medicine apart, Dr. Cabot points out what he believes to be some mistakes on both sides. "The old school," he says, "have been wrong in the past in refusing to consult with homœopaths and to join with them in State and national societies. But we have seen and admitted our wrong and are doing our best to get together with you wherever you will meet us now.

"We have been wrong and irritating in arrogating to ourselves the term 'regular' as opposed to homœopathic. You have been kind enough to spare us more and more of late that ridiculous term 'allopath,' and to call us by the neutral name of 'old school.' This is by no means a perfect designation for an up-to-date profession which in therapeutics has largely repudiated its past and now agrees with you in everything else. Still, in the interests of harmony I think we should sacrifice something, and no one can help recognizing the arrogance of the term 'regular.'

"We have been wrong in saying and believing, as we often have, that there are no real homœopathists nowadays, none that really take Hahnemann's doctrine of similars seriously.

"We have been wrong in not admitting more candidly the bearing of certain well-known facts of pharmacology on the issue between your school and ours. The use of digitalis in relatively small doses to relieve symptoms similar to those of its overdose, the partial similarity between the symptoms of scarlet fever and those of belladonna poisoning, the supposed value of ipecac in controlling nausea (still stated in our textbooks, though most of us fail to obtain any such effects) the fact that you can produce some (by no means all) of the symptoms of malaria by large doses of quinine and some lesions like those of syphilis by overdosing with mercury, that nitroglycerine will often produce and sometimes cure a headache—all these are facts which we should realize and whose significance we should study as far as we can.

"We have been wrong in experimenting so little as we have with homœopathic remedies. The whole question for us should be, do they work?"

On the part of the homœopaths he points out four errors. First, the use of the term "*proving*" instead of *testing*, as applied to the study of the action of drugs. Second, the frequent use of the word *cure*. He believed the word *cure* should only be employed in connection with a drug when the drug is a demonstrable specific for all cases of the disease in question. Third, he believes our nomenclature of drugs is faulty.

"In naming drugs let us keep as close as we can to current usage outside the profession and cease to hold ourselves aloof. Let us call a spade a spade; let us call *corrosive sublimate* by its Christian name rather than by the stumps of two names like *merc. corr.*; when we mean charcoal, let us not call it *carbo*; when we mean *sulphur and oyster shells*, let us say so rather than cling to that curious relic '*hepar sulph.*' When one means *lime*, why should one say *calcareæ*?"

Fourth, he is of the opinion that the members of the homœopathic school lay too much stress upon drug therapeutics to the exclusion of other remedial measures. On this point he says:

"One of our chief grounds of difference, and one not always appreciated by homœopaths, is in the relative importance of drug therapy as compared with other forms of treatment. The best men of our school to-day use far less medicine, I should judge—even in actual bulk—than you do. The chief issue between us is not between homœopathic drugging and old school drugging, but between the old school physician with very little emphasis on drugs and very much on hygiene, dietetics, mechanical, physical and psychic therapy, and the homœopath who adds to a certain belief in these remedial agents a much larger belief in drugs. I doubt if you gentlemen realize how large a proportion of our patients are treated without any drugs at all, and how little faith we have to-day in the curative power of drugs. I think most men of our school to-day would say that the only diseases really cured by drugs are malaria, diphtheria, myxedema and those due to intestinal parasites."

It is not necessary that we should make any detailed comment on any of these mistakes which, according to Dr. Cabot's view, constitute the ground of the old school's objection to the homœopathic school. The first three are of a very trivial character and fall more within the sphere of the philologist or the etymologist than of the practitioner of medicine. As to the relative importance of drug therapeutics, as compared with hygienic, dietetic and various other methods of treatment, we believe this is largely a matter of individual opinion and judg-

ment. Certainly there is nothing in the teachings of Hahnemann or in the traditions of the homœopathic school which would discourage the employment of any method of treatment, in addition to the use of drugs, in the healing of the sick, which experience has demonstrated to be useful. In fact, we are prepared to say that Hahnemann and his followers always laid the greatest stress upon the value of careful diet, nursing, hydrotherapeutic measures, psychical treatment, etc., and there is clearly no excuse for the modern practitioner of homœopathy if he is not prepared to give his patients the advantage of every adjuvant measure which is of proven therapeutic value in the treatment of the sick, as well as physicians of any school or sect.

Dr. Cabot deserves the highest praise for the broad-minded and scientific way that he has treated the subject under discussion. He has tried to be fair to all and has laid aside all prejudice for the sake of the truth. We have no doubt that he will receive sharp criticism from many of his own confreres for his acknowledgment of the truth of many of the basal principles of homœopathy and of the influence which homœopathy has had upon the practice of medicine. Nevertheless this spirit of bitter prejudice which has been only too prevalent in both schools of medical practice is fast disappearing and we need more men of Dr. Cabot's type and more discussions such as that held before the Boston Homœopathic Medical Society to bring about a better understanding of each other and of the methods which we find useful.

In concluding we know of no more appropriate words than those used by Cabot himself in closing his paper:

"Gentlemen, we want the truth, all of it that we can get hold of. So do you. Two ships that steer for the same port are sure to come together sooner or later, no matter how far apart they may be on the ocean. If we keep ourselves in this mind, if we are fair and honest and not uncharitable, we shall pool our knowledge some day and abolish sectarianism in medicine. I hope and pray that this consummation may come in our lifetime. Whether it does or not depends largely upon us—our earnestness, our honesty and our good will."

RECTAL ALIMENTATION AS A THERAPEUTIC MEASURE.

CONSIDERABLE diversity of opinion has been expressed by medical men during the last few years in regard to the practical value of rectal alimentation in the treatment of the sick. Dujardin-Beaumetz said that the therapeutic value of nutrient enemata was illusory. Voit, Bauer, Boyd and Robertson all concluded, as the result of experimental investigation, that the large intestine is capable of absorbing only a small amount of nutritive material and that rectal feeding, even under the most favorable conditions, is subnutrition of the most pronounced kind. That the large intestine has no digestive powers is generally agreed. On the other hand, it is known that the colon has the power to absorb liquids and the presumption is therefore strong that it is capable of absorbing foodstuffs that are already digested.

So great is the importance of a correct knowledge of the value of rectal feeding that Dr. Seymour J. Sharkey made it the subject of a very thorough and exhaustive paper before the Royal College of Physicians of London, on November 16th.

Stated in a general way, Dr. Sharkey concludes, as the result of careful study and investigation, that we are justified in the opinion that a considerable amount of nourishment can be introduced into the body by rectal injections. Water is taken up in abundance and inorganic salts, sugar, alcohol, peptones and pulverized casein are also well absorbed. As regards fat, there is some doubt, but probably very little is absorbed.

It has been clearly proven that proteids are best absorbed in the form of peptones. Huber found by using emulsified eggs that about 33 per cent. was absorbed; using emulsified eggs with salt 70 per cent. was absorbed, and by using peptonized eggs 75 per cent was absorbed. Several observers have also reported a large percentage of absorption from the use of enemata of ground meat mixed with pancreatic substance. There seems then to be no doubt that nitrogenous food is well absorbed by the large bowel if peptonized, and that it is immaterial whether the peptonizing is done in the bowel or before the enema is given. The latter method is, of course, much better adapted to the needs of medical practice.

Sharkey believes it to have been satisfactorily proven by Reigel, Munk and others that peptones and albumoses absorbed

by the rectum are capable of replacing albumin in the nutrition of the body and that they are not excreted unused by the kidneys as when injected into the blood.

The concensus of opinions regarding the value of fats in rectal feeding is not favorable. In the form of yelk of eggs or of milk it is probable that a small amount of fat will be absorbed, but in other forms the absorptive power of fats is practically negative.

It is almost universally admitted that carbohydrates are readily absorbed in the large intestine. Experimental evidence indicates that about 70 per cent. of sugar is absorbed when used in less than a 20 per cent. solution. Grape sugar is especially well absorbed and has little or no irritative effect on the bowel. The absorptive power of starch is of no practical importance, as carbohydrate food is usually given in the form of sugar.

Salt and soluble mineral substances are readily taken up. Zehnsch found that in a mixed enemata 31.5 per cent. of the salts were absorbed. Care must be taken that the solution is not too concentrated, as irritation of the bowel will then result.

It is probable that a great deal of misapprehension has arisen concerning the value of nutritive enemata by not distinguishing between the clinical and the experimental side of the subject. Many investigators having demonstrated the impossibility of completely nourishing the body for a long period of time by the use of rectal enemata, proceed to condemn this method as a therapeutic measure. It must be remembered that, clinically speaking, in the vast majority of cases we resort to the use of rectal enemata merely as a temporary measure and a small loss of weight during this period is of no serious consequence. To admit, therefore, that nutritive injections do not constitute a satisfactory and adequate means of completely maintaining the nutrition of organism does not imply that they may not have an important therapeutic value in assisting in the nourishment of the patient through those emergencies which occur in medical practice, where it is necessary, for a while, to give absolute rest to the upper portion of the alimentary tract.

GLEANINGS

APPENDICITIS AND TYPHLO-COLITIS. D. Dieulafoy, of Paris, in a recent communication to the *British Medical Journal* expresses his opinion that many people suffering merely from attacks of simple mucomembraneous typhlo-colitis are improperly subjected to an operation for appendicitis which does not exist, and that such mistaken practice is on the increase. The patients in question continue to suffer, and all they have to show as a result of the operation is a cicatrix. Such errors, it is held, would not happen if the practitioner, instead of being guided by a "tendency" diagnosis, took some care, before assuming the presence of appendicitis, in making himself acquainted with the proper symptoms of this terrible affection. A long experience has convinced the author that the predominance of pain in the right iliac fossa in the course of an attack of typhlo-colitis is almost always due to typhlitis and not to appendicitis. A genuine attack of the latter affection should, it is held, conform to quite a special clinical picture. The patient is suddenly attacked when in good health, and usually without any premonitory symptoms. The subject of enterocolitis, on the other hand, has been troubled for months, it may be years, by intestinal disturbances. In this affection there is certain pain in the right iliac fossa, but this pain is not so localized as in appendicitis, and, moreover, protective muscular contraction and cutaneous hyperesthesia, accompanied by nausea, vomiting, and fever, are not well marked and constant symptoms. Each of the two affections, Dieulafoy holds, has its own distinguishing symptoms, a careful study of which will, we are told, enable the practitioner in a large majority to make a precise diagnosis. Reference is made to eleven instances in his personal knowledge of mucomembraneous enterocolitis simulating appendicitis, in which, at the operation, the appendix was found to be sound. In conclusion, the author asserts that he remains a keen partisan of immediate surgical intervention in the treatment of genuine appendicitis.

ALCOHOLIC SOLUTIONS OF COCAIN IN OTO-RHINOLOGY. Dr. M. Cornet believes that better results can be obtained by the use of alcoholic solutions of cocain hydrochlorate than by the employment of the watery solutions usually applied. He holds that in general a weaker solution will bring about the same effect that a stronger aqueous one will, a valuable consideration, in view of the possible dangers of cocain. The alcoholic solution acts more rapidly and the burning sensation from the application disappears in a certain time, indicating that the anæsthesia is completed. He also recommends its use in obtaining anæsthesia of the tympanic membrane. To lessen the burning sensation from the alcohol, he advises the use of a very weak watery solution first, and at the end of a minute the application of the full strength alcoholic solution.—*Rev. Hebd. de Laryng., d'Otol. et de Rhinol.*, September, 1904.

APPENDICITIS AND GALL-STONES. Sheldons first noticed about three years ago the frequency of appendicitis complicating bile-passage disease, and since then has removed the appendix when operating for these diseases. In 46 operations for gall-stones, the appendix was found to be diseased 42 times, several times containing pus. The results have been better than when he left the appendix alone. He considers many gall-stones due to chronic appendicitis, the infection being carried into the bile through the portal system and thus setting up an inflammation of the bile passages.

His practical conclusions are: Regardless of the absence of proof of the existence of a definite relationship between appendicitis and infections of the bile passages, disease of the appendix should be kept in mind in performing every gall-stone operation. The appendix should be inspected when possible and should be by no means considered normal on account of the absence of peri-appendicular changes. Unless the author's experience, with the limited number of cases mentioned, has been exceptional, those who operate for the removal of gall-stones and, as a rule, remove the appendix in doing these operations will be impressed with the frequency of the co-existence of these diseases, and if the combined operation is more frequently performed the results of surgery for the relief of bile-passage diseases will be more satisfactory.—*Journal American Med. Assoc.*, Nov. 3, 1906.

J. D. ELLIOTT, M. D.

ANASTOMOSIS OF BLOOD VESSELS BY THE PATCHING METHOD AND TRANSPLANTATION OF THE KIDNEY. Carrol and Guthrie have performed some exceedingly interesting experiments upon animals by transplanting the kidney fourteen times, the ovary once and repairing wounded arteries several times. The method of suturing the blood vessels, called the patching method, has been successful, even when infection has occurred.

The technique consists of removing a circular patch of the wall of the larger vessel along with the artery or vein which is to be transplanted. An opening of similar shape and slightly larger is made in the wall of the vessel which is to receive the transplanted vessel, and the patch is sutured in place.

A clot may form around the line of sutures, but it will be so far from the mouth of the vessel that the circulation will not be interfered with. This same method can be used in repairing wounds of vessels, the patches can be obtained from surrounding vessels, i. e., jugular vein, when the carotid artery has been injured, or such structures as peritoneum in the aorta. The circulation is re-established at once, and in no case has gangrene of the transplanted organ been observed.

Anatomic Results: Within a few days after the operation, the stitches placed in making the anastomosis became covered with a glistening substance similar in appearance to normal endothelium. In some cases a very small ribbon-like deposit of fibrin formed around the line of anastomosis, and irregularly shaped clots occasionally formed at points of defective union of the intimas. Specimens removed from eight days to five months after operation proved the results to be excellent for these periods.

Physiologic Results: As soon as the blood was allowed to flow through

the aorta, the circulation of the renal artery was re-established and appeared to be practically normal. The calibre and appearance of the vessels were not modified and the kidney was a little redder, harder and enlarged. A female cat, to which a kidney from another cat was transplanted, four months ago, is now living in good health. The transplanted kidney is enlarged, its consistency is a little harder and its form is normal. By palpation the pulsation of the renal arteries is easily detected.—*Journal American Med. Association*, Nov. 17, 1906.

NOTE.—No mention of the treatment of the ureters was made, but apparently function of these organs was re-established.

J. D. ELLIOTT, M. D.

RADICAL CURE OF FEMORAL HERNIA. Between the years 1891 and 1906, Coley performed 117 operations for the radical cure of femoral hernia. In fifteen cases the Bassini method was used, and in one hundred cases a purse string suture, beginning in Poupart's ligament and including the pectineal fascia and muscle and the fascia lata and ending in Poupart's ligament about half an inch from the point of starting.

This suture closes the external ring in practically the same manner as Bassini's operation, but is simpler and can be performed more quickly.

There was only one relapse, and this was only partial and followed supuration. Two patients died, both of whom were operated for strangulated hernia.

The author mentions the various operations which have been perfected to close the femoral canal. While admitting the defect in merely closing the canal externally, he believes that the success of an operation should be judged by the actual results achieved and not upon theoretical grounds. And all such procedures are more complicated, more difficult to perform, and more dangerous than the simple Bassini or the purse string suture operations.

An analysis of the cases of relapsed femoral hernia treated at the Hospital for Ruptured and Crippled showed sixty-eight per cent. of the relapses to have occurred within a year of operation, twenty per cent. to have relapsed after one year and only twelve per cent. after more than two years.—*Annals of Surgery*, October, 1906.

J. D. ELLIOTT, M. D.

THE INDIGO-CARMIN TEST AS AN AID IN THE DIAGNOSIS OF PARTIAL AND TOTAL URETERAL OCCLUSIONS. Beer reports three cases to show the value of combining the indigo-carmin test with cystoscopy and ureteral catheterization.

In the first case no urine could be seen coming from the right ureter and it was impossible to pass a No. 4 F. catheter, showing apparently a complete ureteral stricture. But half an hour after injecting 30 minims of a concentrated aqueous indigo-carmin solution under the skin a minute and exceedingly feeble stream of urine was found to be flowing from the mouth of the ureter.

In the second case the indigo-carmin test corroborated a diagnosis of complete blocking of one ureter. In the third case one entirely normal ureter and one which was partially blocked were found by the color test,

after a diagnosis of obstruction of both ureters had been made, on account of the impossibility of passing ureteral catheters.

If the kidney is weakened or diseased, the excretion of the indigo-carmin solution may be so delayed as to be misleading. From his experience the following conclusions were drawn:

1. The cystoscopic study of the behavior of the ureteral orifices does not suffice for the diagnosis of ureteral obstructions.

2. The cystoscopic study of the ureteral jet, especially if the urine is normal, is equally insufficient.

3. Ureteral catheterization per se cannot determine the presence of ureteral obstruction.

4. Similarly the indigo-carmin test per se is as inadequate as ureteral catheterization per se, because though the ureter be patent indigo-carmin may not be excreted if the kidney under examination is diseased.

5. On the other hand in ureteral catheterization conjoined with the indigo-carmin test we have a very satisfactory method of determining the presence or absence of a ureteral obstruction as well as the degree of patency of the ureter.—*Annals of Surgery*, October, 1906.

J. D. ELLIOTT, M. D.

INJECTION OF ALCOHOL IN BLEPHAROSPASM. Valude reports the results in two cases of non-painful blepharospasm, of three and ten years' standing respectively, of deep injections of alcohol at the emergence of the facial nerve from the temporal bone. He employs a solution of 1 c. gm. of cocaine dissolved in 1 c. cm. of 80% alcohol, and his method is practically identical with that of Schloesser. The auricle is pulled forward and upwards, and the needle is pushed in between the anterior surface of the mastoid, and the lower posterior surface of the auditory canal. It is directed slightly forwards for 2 centimeters until it meets with the bony resistance of the styloid process, when its point is worked a trifle backwards along the surface of the temporal bone into the neighborhood of the stylo-mastoid foramen. The injection is made slowly; first twenty centigrams; then at short intervals ten centigrams at a time until one gram in all has been introduced. The immediate result is a paralysis of the facial nerve on that side. This, however, passed off in his cases in about a day; the blepharospasm not returning with its disappearance. This freedom still persisted in his patients when last seen; one twelve, and the other fifteen days after the operation. Volude holds that even if relapses should occur, the operation is not so severe but that it could be repeated. And even if recurrences should take place, the mere establishing of periods of freedom would aid greatly in bringing about permanent cure.—*Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

YELLOW GLASSES IN OPHTHALMOLOGY. Motais advises the use of yellow glasses in cases of retinal hyperesthesia, and other fundal troubles accompanied with photophobia. In all eyes, even healthy ones, these glasses seem to increase the apparent illumination, and yet give a restful feeling. It is generally admitted that it is the chemical rays; those at the violet end of the spectrum, that irritate the retina.

Experiments with these glasses show that they shorten the violet end of the spectrum in proportion to their depth of tint, while the red end is unaltered.

He has prescribed them for fifteen years with satisfactory results. Besides using them in the fundal diseases in which blue or smoked glasses are ordinarily given, he has recommended them for use with electric lights (especially arc lights), in mountaineering, and in motoring. His favorite tint is one that looks slightly orange by transmitted and rather brownish by reflected light. The lenses needed to correct refractive errors can be ground in the tinted glass.—*Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

INFLAMMATORY CONDITIONS OF THE EYE IN THE NEWBORN AND ONE PER CENT. SILVER NITRATE SOLUTION. The author at one time strongly advocating a 2 per cent. solution of silver nitrate (Crede's method) as a certain prophylactic measure against gonorrheal ophthalmia in the newborn, now favors a 1 per cent. solution. Unlike Cramer, who condemns Crede's method as being too vigorous, often leading to troublesome inflammatory reactions, Leopold professes to have had excellent results by this method, at the same time, however, acknowledging an occasional conjunctival irritation not often encountered after the administration of a 1 per cent. solution.

In the Dresden Woman's Hospital, from 1902-1905, inclusive, 7,287 infants were treated with a 1 per cent. solution, resulting in only five early infections, and thirteen late infections. All the early cases he traces to faulty technique on the part of unskilled nurses and doctors. The late infections almost without exception, were produced by soiled hands of the mother coming in contact with the child's eyes. In spite of stringent prophylaxis in this direction, such infections are difficult to prevent; early infection, however, Leopold thinks should not occur if the Crede method of instillation is conscientiously followed.—Leopold, *Annals of Ophthalm.*

WILLIAM SPENCER, M. D.

SCLEROTIC CHANGES IN THE UTERINE VESSELS CAUSING CLIMACTERIC HEMORRHAGE. Wittek has given attention to this subject and after reviewing the previous work of other authors, recites four cases. These were all characterized clinically by profuse uterine hemorrhages for which ergot was administered without avail. All the patients were in advanced age and all had borne many children except the first, who was a nullipara. In this instance the patient was affected by epilepsy, so that the author regards the coincident vasomotor disturbances as of etiological moment. In none of the patients were there pronounced sclerotic changes in the vessels of other parts of the body. The pathological changes found in the extirpated uteri were practically identical, and consisted in an increase of the fibrous tissue; though the changes in the vessels were most pronounced. These consisted in great thickening of the vessel wall so that the lumen was much diminished in diameter and almost obliterated. The thickening occurred mainly in the media, which showed hypertrophic and hyaline changes. The same processes are also found but to a less degree in the

intima. The elastic tissue is often increased. The vessels are frequently found running in wide areas of fibrous tissue. The author suggests that these histological alterations of structure explain why ergot does not favorably affect these cases. It is interesting to note that the author confirms the observations of many others that the endometrium was but little altered, or was atrophic.—*Monatsschr. f. Geb. u. Gyn.* Vol. 23, 796.

THEODORE J. GRAMM, M. D.

GONORRHOEA DURING THE PUERPERUM. Mayer says that puerperal gonorrhœa is not always a harmless disease, as is generally regarded. It may cause fever up to 104° Far., and serious general infection with chills. The clinical picture of septic infection may be produced and life itself threatened. It is not yet determined how much the action of toxins or gonococcic invasion of the blood has to do with this effect. In doubtful cases these severe general conditions and high fever do not warrant the assumption of a strepto or staphylococcic infection, a point having medicolegal importance. Pronounced remissions or intermissions in the temperature curve and an alteration between high fever and afebrile periods of several days suggest gonorrhœa, but may be caused by other puerperal processes. That fever occurring late in the puerperium is characteristic of gonorrhœa is not to be accepted without reserve. In six observed cases, four of the children showed deficient vitality and two died soon after birth. This observation suggests the question whether the uterine mucous membrane, affected by gonorrhœa, is able to favor the development of a normal placenta, and whether the fetus is not affected by the toxins either directly or through the maternal organism.—*Monatsschr. f. Geb. u. Gyn.* Vol. 23, 811.

THEODORE J. GRAMM, M. D.

THE TREATMENT OF CONDYLOMATA BY THE ETHYL CHLORIDE SPRAY. Courant has used this method for four years. The epithelial growths are frozen by means of the spray. If examined in two or three days they are found much diminished in size and the larger ones have lost their turgescence. In about two weeks all have disappeared. The use of freezing mixtures in the treatment of skin diseases is not new, and good results have been obtained in lupus, rodent ulcer, and in lupus erythematosus. The effect of the freezing depends upon an alteration in the cells, death of the diseased tissue and the excitement of a reactive inflammation, by means of which the disease products are eliminated. This treatment applied to condylomata causes their destruction, and seems to have an elective action upon them. The author believes this treatment to be better than all others thus far used and preferable to the knife or paquelin cautery, and seems to be an ideal method for the general practitioner. In the discussion following the presentation of this paper, Courant says he has also found the treatment effectual in the large condylomata occurring during pregnancy.—*Zentralbl. f. Gyn.* 1906, 1023.

THEODORE J. GRAMM, M. D.

HISTOLOGY OF ADENO-CARCINOMA OF THE FUNDUS UTERI. Offergeld, Munich, has carefully studied 15 cases, and gives his results in an extensive article. He concludes in part that there is no predisposition to car-

cinoma induced either by frequent nor rapidly following childbirth; and neither do inflammatory changes in the genitalia nor gynecological treatment protect against the occurrence of cancer. He thinks that carcinoma of the fundus should be removed by laparotomy, since regional gland metastases and cancerous deposits in the ovary arise very early. He finds that as regards malignancy all forms of cancer of the corpus are similar. Adenocarcinoma also penetrates the muscular tissue, although not so deeply as the glandular variety. The malignant degeneration of a clinically benign epithelial tumor is not only not proven, but because of the specificity of the cells is even unlikely; the clinically observed cases may be explained by other circumstances. As will be observed some of these views are not in accord with those commonly held.—*Arch. f. Gyn.* Vol. 78, 289.

THEODORE J. GRAMM, M. D.

PUERPERAL SEPSIS. This subject engaged the attention of the New York Obstetrical Society at one of its meetings some time ago, and was presented in admirable form. Voorhees in speaking of the Etiology reviews the historical data relating to the subject. He recalls the fact that in 1843 Oliver Wendell Holmes was the first to offer plausible suggestions in regard to the cause of puerperal fever. In 1861 Semmelweis published his book on this subject and demonstrated that most cases of puerperal sepsis were due to infection introduced into the genital canal from without, and hence most cases were avoidable. These views put to a practical test were shown to be correct, for by using chlorine water for disinfecting the hands of those attending parturient cases the mortality at the Vienna Mortality was at once reduced from 11.4% to 1.2%. These pioneers, however, met such opposition from those in the highest ranks of the medical profession as to make us of to-day profoundly ashamed. Their ideas now are the established facts of the medical world. Little attention was given to the cause of puerperal fever until Lister, Pasteur, and others identified the relation between bacteria and wound contamination. That almost all cases of puerperal infection originate from without is proven by the immense reduction of the mortality in hospitals by the application of the antiseptic and aseptic method in obstetrics. At the Sloan Maternity Hospital it is but one-quarter of one per cent. The morbidity, however, has remained at 9.1%. One of the problems of the day is to reduce this morbidity, which is not an easy task since so many cases are already infected when admitted to the hospital. In private practice the results are just the reverse. The frequency of severe cases and the morbidity has been but little diminished. The responsibility for this is ascribable to the carelessness and ignorance of midwives who attend 60% of women in the large cities; the uncleanness of the rank and file of the profession; and the fact that the earliest symptoms of infection are disregarded and are not properly treated. This is the second great problem before us, namely to diminish the mortality in private practice. To solve this problem midwives and students must be better educated in surgical cleanliness, and the warfare continued against the slovenly methods still in vogue by many of the older and careless members of the profession. The micro-organisms involved in puerperal sepsis are usually streptococci, staphylococci, colon bacilli, gonococci in addition to other saprophytes. The conditions predisposing to infection are a dry

labor, protracted labor, instrumental delivery, induced labor, retention of shreds and coagula, lacerations, hemorrhages, a soft uterus, retention of lochia. Anyone operating upon and dressing pus wounds, attending contagious cases, being personally affected by chronic eczema, pink eye, coryza, or with infected abrasions on the hands, should temporarily discontinue obstetric practice. Similar rules should apply to the nurse. The patient may infect herself by a digital examination. The writer believes that greater care should be exercised in cleansing the vulva. The question of autoinfection is admirably reviewed. His conclusion is that a few cases are attributable to this mode of infection.—*Amer. Jr. Obs.* Vol. 53, 753.

THEODORE J. GRAMM, M. D.

ACETANILID. N. Bergman, M. D., Chicago. . . . A general analysis of the principal action of acetanilid shows this to be on the nervous system, also upon the constituents of the blood. Upon the gray matter of the cord it causes depression, lessening the power of conducting impressions and at the same time diminishing the receptivity of the brain. This organ seems to retain its clearness, but motive power and conduction are effected. It reduces the frequency and force of the pulse, depresses respiration and in very large doses, the drug has caused anesthesia, loss of reflex action, impeded circulation, convulsions, coma and general paralysis. In ordinary doses its action on the blood is not noticeable, but if its use is persisted in, it leads to anemia. In overdoses it acts directly on the hemoglobin, producing methemoglobin and lessening the oxidizing power of the blood. The blood may become of a dirty brown color, and hemoglobinuria may be present.

Several points in its administration may be considered, which will influence the action of this drug. When its use has been persisted in for some time, a day or two of rest must be allowed to intervene, as it undoubtedly possesses a cumulative action. Many instances are reported, in which severe toxic symptoms have followed the same dose, that had been given for some days with only beneficial effects. In anemic patients and infants, in the debilitated and aged the toxic symptoms occur more readily. The time of the dose given in fevers is of importance; if given with the rise its action appears slower, but when given with the decline, the fall of temperature will be rapid and probably in excess of what was expected. When toxic symptoms arise, there is generally a sudden sense of weakness and oppression with a rapid lowering of temperature and twitching of lips and finger nails. This is accompanied or followed by vertigo, giddiness, noises in the ears, dilated pupils, cold extremities, subnormal temperature, shallow breathing, feeble pulse, nervous twitchings, convulsions and coma.

. . . . —*The Clinique.*

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

TREATMENT IN ADVANCED STAGES OF CHRONIC ULCERATIVE PULMONARY TUBERCULOSIS. By William H. Van den Burg, M. D., New York. . .

MEDICATION. As yet, to the best of my knowledge, no specific remedy has been found, either for tuberculosis, or for tuberculosis plus infection with pus-forming organisms. The object of all medication should be to prepare the soil that it does not furnish a proper nutriment for the infecting principles.

Recently some very excellent results have been obtained by the use of anti-streptococcic serum in cases where the streptococcus predominated. I believe this to be a very efficient remedy where the infection is of the same type of organism as that from which the curative serum was prepared. This, however, has no effect on the tuberculous process itself. It simply neutralizes the effect of the streptococcus toxins and so removes one element in the disease.

In a recent article in the *American Journal of Medical Sciences*, Dr. E. L. Trudeau, of Saranac Lake, (N. Y.) gives his experience of the past fifteen years with the use of Koch's Tuberculin. He has used it in a limited number of cases, in very minute doses. In advanced cases his percentage of disease arrested is much better in the cases treated with Tuberculin in the above manner than in those untreated and he sums up his article with these words:

"Many years ago in spite of the general denunciation of Tuberculin, and long before I knew anything about the statistical evidence, I had formed the opinion that Tuberculin, when carefully administered, had within certain limits, a favorable influence upon the course of the disease, and that the results of treatment could be improved and made more permanent in many cases by its application. As years have passed, I have seen no reason to change this opinion."

With this method of treatment I have had no personal experience, but with Trudeau's statistics before me, it seems that, notwithstanding the disfavor in which Tuberculin has fallen, that we may still have in this remedy some help.

Of the numerous other anti-toxic sera which have been developed those of Marmorek and von Behring are at present the most prominent, but both have been in use too short a time to form an adequate opinion of

their efficacy. Lannelongue recently reported at a meeting of the Paris Academy of Sciences results of a long series of experiments with a serum obtained from immunized asses, in which very favorable results appeared to have been obtained upon both guinea pigs and human beings.

It seems reasonable to hope that an anti-toxin will eventually be developed which will counteract the effect of the tubercle bacilli upon the structures of the human body, but it is too soon to judge whether this has as yet been accomplished. The old-fashioned remedy, cod liver oil, is still applicable to many cases who can digest and assimilate fat. It occupies the place of a nutriment rather than a remedy, but I find comparatively few patients in the febrile stage of the disease who can tolerate cod liver oil. Creosote, or its derivative Guaiacol, are still useful in a certain number of cases, as an intestinal antiseptic. They are no longer considered to have any specific effect upon the process in the lungs.

Since the development of high frequency electric currents much has been claimed for their power to stimulate nutritive processes in the system, to the extent of causing a certain degree of immunity to infection. So far I have been unable to obtain sufficient reliable data to enable me to speak with any degree of authority as to their efficiency.

As yet with the possible exception of small doses of Tuberculin and streptococcic serum, I think no drugs have been advanced which offer more prospects of success than the well-indicated homœopathic remedy. This should be chosen for the individual patient, taking into consideration all of the conditions presented and may frequently have to be changed.

It seems to me that the efforts now being put forth to obtain curative products of the integrative principles in various diseases is simply a wider application of our old law of *similia similibus curantur*, and in so far as they adhere to this law, they will ultimately be successful.—N. A. J. H., Dec. 1906.

[We are glad to call attention to Dr. Van den Burg's words in this last paragraph.]

BRAN BISCUITS for patients who suffer from constipation and, are addicted to the use of all kinds of cathartics, may use these for a time until medicine effects a cure. Cathartics always produce constipation; they never have and never can cure it, and should be abandoned.

Wheat bran, one quart.

Flour, one pint.

Sour milk, one pint.

New Orleans molasses, 6 tablespoonfuls.

Soda, two tablespoonfuls.

Salt to taste, and make in gem tins.

Eat quantum sufficit.

DR. H. C. ALLEN, in *Medical Advance*.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

IMAGINARY REMEDIES: In the *Bulletin de la Societe de Therapeutique* of the 27th of June last, Dr. Albert Matthieu, chief of one of the hospitals of Paris, reports a series of experiments on mental suggestion, and in which, strange to say, he utilized for this object, some of our remedies. No wonder, then, that Dr. De Cooman, in the *Journal Belge d'Homœopathie*, and Dr. Paul Chiron, in the *Art Medical*, come out indignantly against the stupid masquerade, if nothing else, of the illustrious Parisian physician, who absurdly believes the good results he obtained were due entirely to his sagacious way of striking the imagination of his patients. With Dr. Cooman, I think, the suggestionist was, either ignorantly practicing homœopathy, or else he was trying the efficacy of our system. The remedies he used for his dubious practice, and under assumed name, were taraxacum, natrum muriaticum, and natrum phosphoricum.

The first he gave it under the pompous name of taraxacum dens leonis, which he had prepared in the shape of pillules, with the leaves of dandelion. This prescription was to replace bromide of potassium, whose anodyne properties he had put in doubt; and to strike more forcibly still, the imagination of the patients he told them it was a very powerful remedy and should be taken with the greatest care. Of course, by means of his suggestive treatment, with pills of dandelion, he succeeded in curing various pains—stitch in the side, gastralgias, vertigo and many other ills which up to the present time had resisted his treatment.

Next, he employed natrum muriaticum (Na. Cl.) subcutaneously and in order to impress his patients with the magic effect of his drug, he called it bi-morphine. Presented and prescribed under such enticing name, the effect was marvelous. As quickly as morphine did these injections of salt water cut short the fulgurant pains of locomotor-ataxia. Not much suggestion in this, I hope. But our *Materia Medica* teaches us how these miracles are done, as Dr. De Cooman so well puts it. We also relieve and cure the intolerant pains of hepatic colic with this pretended bi-morphine (Na. Cl.). The pertness or pretence of the investigator reaches, however, the maximum, when he again christens salt water, with the no less attractive name of antiphymose, which he introduces at the bed side of consumptives, as a great discovery to extirpate the dreaded tuberculosis. *La mise en scene* included the previous preparation of the patient, who anxiously awaited the new remedy promised, and who attended by competent nurses, were weighed every day and their temperature taken every two hours. All these precautions, of course, directed to inspire them with absolute confidence in the new remedy which was to do so much for them.

The results were truly extraordinary, unheard of before. Under the influence of antiphymose injections (salt water), the appetite returned and became voracious, the sleep improved notably, the fever disappeared, the cough ceased to be frequent and the expectoration decreased, and what is really more surprising, on auscultation, one could discover a partial cicatrization of the lesions. More yet, without the least change in the usual regimen, these tuberculous patients began to gain in weight, but if for any reason whatever the injections of salt water were interrupted, the fever reappeared, the weight diminished, and the poor consumptives started again to cough and expectorate. Is it not wonderful!

And now we come to *natrum phosphoricum*. A no less curious substitution for opium, morphine or chloral, was the employment of phosphate of soda to produce sleep in patients suffering from insomnia. After they swallowed this drug they were literally overcome with sleep, simply because they were convinced that they had taken a powerful hypnotic. They slept from conviction, persuaded as they were that they could not resist the somniferous effects of such a remedy. These were subjects discussed not long ago in a medical society of Paris.

Here we have, says Dr. De Cooman, four great classes of patients, suffering from very serious affections, treated successfully by imaginary remedies (nervous trouble, locomotor ataxia, insomnia and tuberculosis), and I ask is this the black art, disguised homœopathy or really mental suggestion. If it is mental suggestion, as Dr. Mathieu claims, why did he not make his nervous pills with *mille panis*, instead of dandelion; why did he not inject *aqua simplex*, boiled and filtered, if desired, in place of salt water, christened by-morphine and antiphymose; and why does he prefer phosphate of soda, to opium and morphine to produce sleep?

Is it not curious, nay, I may say significant, pregnant with meaning that the drugs selected for experimentation by Dr. Matthieu, should comprise in their pathogenesis, similar symptoms as those observed under the evolution of those nervous affections, for which old-school pours into the system tons of bromides every year, as well as those exhibited during ataxic and tuberculous processes; and more surprising still that he should have taken for his researches maladies, which under the law of similars have been cured by *taraxacum*, *natrum muriaticum* and *natrum phosphoricum*.

All this, we must admit, is more than interesting to us, who have been successfully using drugs held inert by our defamers, since the days of Hahnemann, and who now see these very detractors assigning therapeutic virtues to the very drugs they have been criticising and ridiculing.

Is it a wonder then, I repeat, that Dr. Chiron should exhort Dr. Mathieu to continue his labors with this wonderful discovery of medicamental suggestion, so as to be able to entice his confreres and urge them to try the homœopathic doctrine, unaware of what they are doing. We, says Dr. Chiron, who battle under the flag of Hahnemann, should congratulate ourselves for having discovered the existence of converts among those we had believed to be our enemies, and let us thank Dr. Mathieu for the authoritative manner in which he is propagating our ideas.

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DIAGNOSTIC AND PATHOLOGIC CONSIDERATIONS OF NEW GROWTHS.

BY

H. L. NORTHROP, M. D.

(Read at the annual meeting of the Pittsburgh Pathological Society, November, 1906.)

Gentlemen of the Pathological Society of Pittsburgh and
Guests:

You honored me with an invitation to address you at your annual meeting; I appreciated this honor so fully that I accepted. I have anticipated this meeting with great pleasure and I can therefore say with all sincerity that I am delighted to be with you tonight and that I wish you, individually and as a Pathologic Society, every professional blessing and success. It is not necessary for me to come to Pittsburgh to be in Pittsburgh; to be here in spirit is not a difficult matter. I am proud indeed of my many friends here. I think of them frequently and their good professional work commands both my admiration and applause.

The high personal calibre of Pittsburgh's homœopathic physicians is undeniable and "Old Hahnemann" is proud of her large Pittsburgh family—every mother's son among them. Outside of Philadelphia itself no other city has sent as many students to our College as Pittsburgh, and the majority of them have been men whose professional light has not been—could not be—hid under a bushel. I have come here to-day to pay this well deserved tribute to Pittsburgh's homœopathic physicians, whom I am honored to have as my friends, just as

much as I have come to address them on any scientific question.

To select a subject worthy of the occasion and one which will fit both speaker and hearers is (I believe you will grant me) a difficult matter. I am frequently impressed with the difficulties of making a correct diagnosis. Who is not? I believe that medical colleges spend too little time in teaching the all-important subject of physical diagnosis. And then what a large amount of experience is necessary, before one becomes an expert. Imbued with this feeling and aware of the vast number of patients who are the victims of neoplasms, I ask you to review with me some "Diagnostic and Pathologic Considerations of New Growths." Here is a big field; it needs our cultivation.

SEBACEOUS CYSTS.—These are retention cysts; the excretory duct of a sebaceous gland becomes obstructed by inflammatory products or foreign material (dirt) and the gland-secretion is pent up, forming a firm swelling, at first insignificant in size. As the result of pressure the gland loses its secretory power, more or less, and the wen grows slowly. Later, as the sebum accumulates, it may reach the size of a small orange. In a few cases the orifice of the sebaceous duct may be discerned as a black speck on the top of the wen and pressure will sometimes cause sebaceous material to exude. Because the gland is in the skin, and *not under it*, the skin and tumor move simultaneously, and not independently of each other. Let it be remembered, however, that in the larger and deeper forms of sebaceous cyst the cyst wall may be separated from the skin and become more or less freely movable beneath it. Sebaceous cysts are especially common in the scalp and on the face, neck and shoulders. They are often multiple.

The most frequent degenerative change which a sebaceous cyst undergoes is one of inflammation: the contents suppurate. In the absence of little or no outside irritation and if allowed to remain for a number of years, the sebaceous contents may undergo calcification. Here is such a specimen—a calcified sebaceous cyst the size of a small egg which I removed from a woman's neck. It had been there for thirty years.

The macroscopical features of a sebaceous cyst are those which belong to a collection of more or less dried, thickened sebum surrounded by a capsule which is the secreting membrane, or source of the cyst contents. This sac must be entirely removed at the time of operation, or the cyst may recur.

RODENT ULCER is now believed to have its starting point in a sebaceous gland, and is best defined by saying that it is an extremely chronic form of epithelioma of the face, occurring late in life and more frequent in men than in women, like all epitheliomata. It very seldom appears on any other part of the body (although I remember seeing one on the back of the hand) and it is especially common on the nose and forehead, appearing as a wart which ulcerates. The edges become firm, irregular, and the base is smooth and clean; very little secretion is present. It is characterized by a slow but persistent tendency to increase in size, without any lymphatic glandular involvement, and maintaining its right of way by destroying all tissues in its path. Such an ulcer grows for years, is unaccompanied by cachexia, and is seldom fatal.

A chronic ulceration on some part of the face, particularly on the nose or forehead, is frequently diagnosed an epithelioma, and let it be borne in mind that clinically a rodent ulcer is a slowly growing epithelioma, although microscopical examination fails to reveal the presence of the epithelial whirls.

We differentiate a rodent ulcer from lupus by the greater age of the patient in the former, and by the fact that the floor and edges of a rodent ulcer are firm; in lupus they are soft and flabby. A rodent ulcer seldom cicatrizes, while lupus usually does.

LIPOMATA, or encapsulated tumors of fat, are found almost everywhere in the body, but they are commonest on the surface, especially of the back and shoulders; they may also occur in the neck, axillæ, or groin. The diagnosis is usually easy: the tumor, growing in one of the characteristic localities, is freely movable beneath the skin, gives a sense of elasticity, or semi-fluctuation, and is not sensitive or painful unless subjected to severe pressure. Occasionally the typical, lobulated arrangement of its adipose tissue may be felt beneath the skin, or it may even be seen when the skin is drawn tightly over the growth.

Probably a lipoma is confused more frequently with a sebaceous cyst than with any other new growth, because the localities invaded by both are the same. It should not be forgotten that a sebaceous cyst is *in* the skin and adherent to it, a lipoma is *beneath* the integument, growing in and confined to the subcutaneous tissue. A wen is symmetrically spherical and stands out boldly from the surface; a lipoma is very frequently

ovoid and flattened, its margins not sharply defined. The wen is liable to inflammation; the lipoma very rarely degenerates.

The macroscopical appearance of a lipoma is an encapsuled collection of typical adipose tissue, often of a somewhat deeper yellowish color than the surrounding normal fat. Let it be remembered that all benign tumors are encapsulated, that malignant tumors never are. Sarcomata may seem to possess a capsule, but, pathologically, none exists, for the sarcoma cells have infiltrated the condensed connective tissue wall of the growth and extended into the surrounding tissues. There is no attempt whatever on the part of carcinomata to form a capsule.

The subperitoneal, subserous, or preperitoneal lipoma deserves our careful attention, for it is very frequently wrongly diagnosed, or not diagnosed at all. The peritoneum, like the skin, rests upon a bed of fat, and this may proliferate sufficiently in one locality to merit the title of lipoma, called subperitoneal or subserous from its relative position. Especial interest attaches to the diagnosis of this variety because of its frequent association with the hernial openings of the abdominal wall, and because it frequently coexists with a true hernia. Hence its synonym, fatty hernia, and by reason of its common position in the epigastrium and near the umbilicus, it is also known as epigastric and paraumbilical hernia. It is here found with greatest frequency, viz., in the linea alba, and almost invariably above the umbilicus. The linea alba presents numerous apertures for the transmission of vessels and nerves, and is considerably wider above the umbilicus than below it, where the recti muscles are more closely approximated. The extra-peritoneal fat is more abundant beneath the linea alba than to either side of it. Such are some of the anatomical reasons explaining the predilection of these lipomata for the linea alba. They may also be found in the femoral region, and, finally, in the inguinal and umbilical regions. Although I have encountered a number of these preperitoneal lipomas, never until a few days ago have I found one with a positive thrill, or impulse, produced by coughing. The lipoma in this case is situated in the linea alba, midway between the ensiform and the umbilicus, is equal to a silver dollar in circumference, and projects forward enough to be easily visible. Probably the thrill is due to additional preperitoneal fat being pushed through the hernial opening, which is too high for the

expulsion of small intestine, or even transverse colon, and the gastric wall is too tense and too thick to be pushed into so small an aperture. These fatty herniæ are usually adherent to the margins of the opening in the linea alba, and by traction on the peritoneum frequently cause gastric pain and other reflex symptoms. The case I have just referred to suffers from persistent vomiting regularly one hour after each meal, and has lost twenty pounds in weight during the past three months. I hope to operate upon his hernia day after to-morrow. All the cases of preperitoneal lipomata I have seen have been in men past middle life, and I find by referring to the literature of the subject that in 10,000 cases of hernia examined, 137 were of the epigastric variety, and of this number 117 were in males over 15 years of age, while in 77 cases of so-called epigastric hernias, 46 were true hernias, the remaining 31 cases being preperitoneal lipomas.

The LYMPHATIC GLANDS of the body present a number of primary new growths, and are often the seat of infections and secondary deposits. They are well named catch-basins. Enlargement of the lymphatic glands may be due to infections, to carcinoma, to sarcoma, or to lymphoma. Acute infection causes a rapid enlargement accompanied by tenderness, pain, fever, etc. A chronic infection is usually due to either tuberculosis or syphilis. Leukemia and pseudo-leukemia (or Hodgkin's disease) present the characteristic progressive anemia and general involvement of the lymphatic glands and lymphoid tissue of the spleen. Sarcoma will involve gland after gland, primarily, but seldom gives rise to lymphatic infection. Carcinoma of the lymphatic glands is always secondary, and cannot be primary, because the glands do not contain the histological basis, viz., epithelial cells, for cancer formation. A lymphoma is a rare, benign tumor of a lymphatic gland occurring singly with no tendency to involve neighboring glands. It is to be distinguished from the infections by its chronicity and absence of inflammation, and from malignant deposit, lymphangioma and lympho-sarcoma by its innocence. It develops most frequently in the neck, but may also be found in the axillæ, groins, and mediastinum. It occurs most commonly in young adults and if allowed to remain may degenerate into sarcoma.

Multiplicity is a common characteristic of lymphatic gland disease, especially when that disease is due to infection. In tuberculosis, for example, whole chains of nodes, superficial

and deep, will be involved in the processes of inflammation, caseation, and suppuration; they are prone to become matted together by reason of the inflammatory process extending to the surrounding tissues and producing periadenitis. Because of their favorable situation near the mouth, tonsils and pharynx, the cervical lymphatic nodes are most frequently infected. Although called tubercular, it is a question whether the tubercle bacilli can be demonstrated here even in the minority of cases. Personally I am of the opinion they cannot. To call them scrofulous is merely to employ an antiquated term which covers a great deal of ignorance, but which possesses no pathological meaning and which has probably found its proper level on a Hood's Sarsaparilla bottle.

The adenopathy of syphilis is another example of multiple involvement. Here the infection is general and symmetrical, and can usually be coupled with the history of a primary lesion and the existence of other secondary manifestations.

The multiple NEURO-FIBROMATA of the neck, associated with the cervical and brachial plexuses, constitute a rare variety of new growths developing in groups or chains, but the essential diagnostic fact remains that the multiple tumors growing in localities where glands are normally found are of lymphatic origin.

Coming now to a consideration of the differential diagnosis and the clinical pathology of MALIGNANT DISEASE, let it not be forgotten, as just stated, that the carcinoma has no capsule, but infiltrates. This behavior on the part of cancer is well illustrated by one of the fundamental differences between an ordinary wart and an epithelioma; the wart consists of a collection of epithelial cells piled up upon and growing out from the integumentary surface; an epithelioma is made up of cells which have extended down beneath the true skin into the subcutaneous connective tissue. An epithelioma is therefore an ingrowth of epithelium, an atypical proliferation of specialized and unduly active epithelial cells extending beyond a basement membrane. Histogenetically, carcinoma is of either epiblastic or hypoblastic origin, while sarcoma develops from tissues of mesoblastic origin. Hence the specific tumor element of the carcinoma is an embryonic epithelial cell; that of sarcoma, an embryonic connective tissue cell. Carcinoma is disseminated by means of the lymphatics, which are to be found in the tumor itself and which transfer the tumor cells from the pri-

mary growth to the lymphatic gland or the organ involved in the metastasis. Sarcoma, on the other hand, spreads through the agency of the blood-vessels, connective tissue and nerve-sheaths, and much earlier, more actively than carcinoma. Because of this and on account of the clinical fact that the primary tumor grows more rapidly than in carcinoma, we are led to the conclusion that sarcoma is more malignant than carcinoma.

I recall a woman 49 years of age who presented a very greatly swollen hand and forearm. Three months before this she had discovered a lump, the size of a marble, on the back of the forearm above the wrist. Now the forearm is three times its normal size and looks waxy and oedematous. Over her vertebral column in the lower thoracic region is a hard, immovable growth, two and one-half by three and one-half inches in size; below the right iliac crest is a tumor the size of a hickory nut; a fourth growth the size of a marble is to be felt in the left buttock; another exists on the left thoracic wall, and a sixth is located on the outer surface of the left thigh. Six new growths, two of large size, and all appearing in from three to four months. Moreover, not one of these disseminated tumors is situated in a region occupied by lymphatic glands. The diagnosis must be multiple sarcomata, and the microscope verifies it after the removal of all of them, including an amputation at the shoulder-joint.

When asked "What causes cancer?" we must acknowledge our ignorance and confess, "We do not know." It will not satisfy the mind of the laity, nor even our own, to say that cancer is caused by the proliferation of embryonic cells, presumably of ante-natal origin; that it is due to a renewed and uncontrollable activity on the part of some displaced tissue, unutilized in the development of normal parts and organs. Such was the speculation, the embryonic hypothesis, of Cohnheim. The principal argument against it is that the unutilized embryonic excess of cells has never been demonstrated, although we can make a very plausible application of the theory in explaining the origin of some connective tissue tumors, and many dermoids.

Heredity is regarded by the majority as playing a role in the cancer tragedy. The woman with a new growth in her breast is quite sure to volunteer the information that there either is, or is not, cancer in her family, and looks upon it as a probably

deciding point pro or con in arriving at a diagnosis. But statistics on heredity as a factor in the causation of cancer are especially unreliable, because of the unreliable source from which the information comes, viz., the laity, and the distorted notions they possess concerning matters medical. The weight of authoritative testimony, however, is to the effect that in many families there is a hereditary predisposition to cancer. Just what this means, from the pathologist's standpoint I would not dare to essay.

We can speak more positively of traumatism as an exciting cause of malignant growths. For centuries it has been recognized that carcinoma and sarcoma are precipitated by injuries, but strong is the belief of the majority that the nucleus for a new growth existed prior to the injury. I realize that this question of a pre-existing matrix opens up a subject concerning which pathologists are diametrically opposed to each other. One authority (Senn) states that traumatism alone can no more produce a tumor than can inflammation occur without the presence of pathogenic microbes. The trauma can only act as an exciting cause in stimulating a pre-existing matrix of embryonic tissue into active cell proliferation. On the other hand, Keen says that sarcomata and carcinomata are the tumors to which Cohnheim's theory cannot be regarded as in any sense applicable. He adds, the embryonic theory is now discarded as an explanation of the origin of cancer.

There is a medico-legal bearing to this phase of the etiology of malignant growths, as exemplified by a suit for personal damages brought against the North German Lloyd Steamship Co., by a patient of mine, in which Dr. Wm. B. Coley, of New York, and I, figured as witnesses. Our testimony was to the effect that one-third of all cases of sarcoma are caused by traumatism, and that the case cannot be found where there is any family history or personal evidence of a predisposition to sarcomatous disease.

A brief rehearsal of the details of this case may be of practical interest. Mrs. B., age 36, was struck on the flexor side of her left forearm just below the elbow by a movable washstand in her stateroom on a North German Lloyd steamship, the washstand falling from the side of the room where, so she claimed, it had been insecurely fastened. A severe contusion of the forearm was thus caused, the swelling remained, assumed the character of a tumor, and two months later I re-

moved a spindle- and round-celled sarcoma, the size of a crab-apple, from the seat of injury. In less than four months there was a recurrence in the scar. Erysipelas toxins were given a faithful trial and temporarily controlled the sarcomatous tendency. Later, an amputation (until then refused) was done just below the shoulder-joint. Altogether she has had seven operations in our effort to get beyond this disease, to say nothing of the use of erysipelas toxins and X-ray treatment. We have now given up the fight, for she is beyond all aid. Her husband sued for \$8,000, which he claimed was the medical expense bill attached to the case. The jury were out for two days, failed to agree, and were discharged by the judge. The defense tried to prove, principally from the plaintiff's witness, that a predisposition to sarcoma had been present in the plaintiff's system. But a United States Circuit Court is no place in which to ventilate the Cohnheim theory of tumor origin.

Let us now consider some points of differential diagnosis of new growths in the MAMMARY GLAND. The profession are forced to acknowledge that cancer is on the increase and statistics show that this statement includes malignant disease of the breast. Besides carcinomata and sarcomata as malignant varieties, the breast may be the seat of cysts, adenomata, fibromata, myxomata, lipomata and chondromata, all of a benign character. Of the latter, a combination of adenoma and fibroma, or adenofibroma, constitutes one of the commonest kinds, with the adenoma a close second in frequency. Clinically it is impossible to distinguish one variety from the other. The adenoma never reaches a large size, and usually occupies a peripheral position in the breast. Several adenomata may co-exist in the same gland. The subjects are relatively young, and are unmarried, or, if married, have never borne children. The growth often causes early, severe pains, and is tender to pressure. Because it is of a benign character, of course it is encapsulated, and therefore there is never any retraction of the nipple or attachment to the over-lying skin or chest-wall beneath. Adenomata may undergo cystic degeneration; when this happens the patient is usually advanced in years, and the tumor may reach a considerable size. An adenoma may also degenerate into a carcinoma, and its most prolific tendency is in this direction. (A hint as to the proper treatment to be pursued).

In a differential diagnosis from carcinoma, therefore, we find the adenoma in younger and often unmarried women, the tumor is small in size, slowly growing, more painful (early), occasionally multiple, and is never attached or accompanied by lymphatic infection. From sarcoma we distinguish it by its small size and slow growth, its much greater frequency, and by the absence of the enlarged veins which traverse the breast surface so commonly in sarcoma.

The macroscopical appearance of an adenoma is that of a well-defined, encapsulated growth, whose cut surface presents a slightly lobulated appearance and closely resembles a section of a uterine fibroid. In color it is a purer, cleaner white than the cut surface of a carcinoma; it looks to be of a finer texture, and does not resemble the broken surface of a hard winter pear or a quince, like the carcinoma, which also will be found to have extended out into the surrounding tissues, crab-like, in different directions.

These pathological differences must be seen, of course, to be fully appreciated; it is hard to give them their proper quality and color by proxy. The necessity and the value of such experience has been impressed upon me more than once at the time of operation, and is a potent reason in deciding the subject of this contribution. Only recently I saw a lady thirty-six years of age, married, but who had never been pregnant. Three days before her visit to me she discovered a lump of the size of a half-dollar in her right breast near the centre and extending towards the outer periphery. The skin moved separately from it; it was slightly tender, but no pain was felt until after its discovery. The nipple was not retracted and there was no axillary infection. Although everything connected with this case pointed against malignancy, and my tentative diagnosis was adenofibroma, I advised an operation. Upon turning up the breast from below by a semi-circular incision (method of Thomas) I detected an encapsulated growth with a clean, white, fibrous surface, such as I have tried to describe as belonging to an adenoma and an adenofibroma, and so different from the dirty, white, coarse texture of the raw carcinoma. I was thus enabled to do a conservative operation, and removed the breast only. The microscope has proved this growth to be an adenofibroma.

Every variety of SARCOMA is found in the breast, but the spindle-celled growth predominates. It may remain small for

a considerable time, when it will increase with marked rapidity. Its real character should then be suspected, particularly since there is no lymphatic involvement. Compared with carcinoma, sarcoma of the breast is rare, and is found most commonly in young women. Corroborating the fact that sarcomata spread along the path of the blood vessels and their connective tissue sheath, permit me to report a case of mammary sarcoma in a young woman where the wall of the long thoracic artery had been infiltrated and could be felt as a distinct, thick cord, at the lower border of the pectoralis major muscle.

At least 80 per cent. of all mammary tumors are CARCINOMATA. They are of greater frequency in the white, than in the colored race, and in married women who have borne children, than in unmarried. More prevalent in women who are foreign born, we also find more cases in New England and on the Pacific coast, in Pennsylvania, Ohio, Michigan and Wisconsin, than elsewhere. There are fewer cases in the South than in the North. Typically a disease of the declining breast, it occurs usually between 40 and 50 years of age. It is seldom found under 35 years, although one case at 21 has been recorded. One of the worst cases of breast cancer I ever encountered was in a woman 28 years old. She had had mastitis. Paget's disease (a precursor of malignancy), mastitis and traumatism are all potent predisposing factors in its causation.

Classified according to the preponderance of stroma, or cells, we find them correspondingly hard, or soft, scirrhus, or medullary. The scirrhus variety occurs in about 95 per cent. of all cases. Theoretically, the medullary carcinoma should be softer and more juicy than the scirrhus. I once amputated a breast containing what I believed, from clinical evidence, would prove to be a scirrhus growth. Section of it at the time of operation showed its interior to be soft with beginning degeneration. The pathologist's report called it a medullary carcinoma.

Other clinical and pathological differences associated with malignant and benign tumors have already been mentioned, or are well known, and I need not cite them here.

I believe that if we will improve every opportunity to study the clinical, macroscopical and pathological phases of new growths, no matter of what kind or in what part of the body found, we will make better and more accurate diagnoses, and will have the satisfaction and legitimate pride of being less de-

pendent upon the microscope, inasmuch as we will be able to reach a correct conclusion in many cases without waiting for the laboratory report. Finally, a decision for or against cancer at the time of an operation means the turning of the tide favorably, or otherwise, for the patient, and determines for the surgeon what course he must follow.

THE PROGRESS OF HOMŒOPATHY IN THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND SINCE THE YEAR 1900.

(Presented to the International Homœopathic Congress, at Atlantic City, U. S. A.,
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BY

D. DYCE BROWN, M. A., M. D.,

Consulting Physician to the London Homœopathic Hospital, &c.

I HAVE, in the first place, to thank you for the honor you have done me in asking me to write this paper, an invitation which I have much pleasure in acceding to.

This account takes cognizance only of the progress of homœopathy in the United Kingdom of Great Britain and Ireland since 1900, the date of the last International Homœopathic Congress at Paris.

Up to the commencement of this period the progress of homœopathy in this country was rather of the *laissez-faire* type. A hard struggle had long been fought for homœopathy, in spite of violent opposition and virulent abuse on the part of the old school, and with such signal success that the tactics of the old school had changed. They ceased their abuse and marked opposition to the new school, and adopted the tactics of silence, while at the same time largely making use of homœopathic medicines, and absorbing Hahnemann's views in many important points. It was, we surmise, hoped that by these means the homœopathic school would thereby be gradually absorbed, and homœopathy introduced by them under another name, and with the assurance to the public that they had been practising the new treatment for long. This "conspiracy of silence" not unnaturally gave relief to the homœopathic body; they acquiesced in the absence of the former old school tactics, and lay on their oars, allowing things to drift quietly on, and

disliking unnecessary warfare. Of course, it is now seen that such easy-going procedure was far from being conducive to the progress of homœopathy. In fact, when no actual progress is made, the reverse, retrogression, follows as a natural consequence.

This was beginning to be perceived, and a general feeling of unrest and reaction was noticeable in our ranks, while a desire for a forward movement was more or less general, and the danger of the drifting *laissez-faire* tactics was becoming obvious.

The first tentative suggestion came from Dr. Edwin A. Neatby, in an able article written by him in the *Monthly Homœopathic Review* of July, 1901. I say "tentative," as it really was. Dr. Neatby, in some prefatory remarks, says: "If only the need of a forward movement is at all generally realized. If it meets with a practical approval I shall be greatly encouraged; if it meets with a thorough rousing criticism, I shall feel there are still hopes for homœopathy; if it elicits neither praise nor blame I shall conclude that, either my mental vision is seriously distorted or that the day of homœopathy's demise is nearer than I imagined."

In this article Dr. Neatby sketches out what he would suggest to be done, but added that without money—adequate funds—it cannot be accomplished.

Almost directly after this article appeared in print, but, of course, well thought out long before, Dr. George Burford delivered his address, as President for the year of the British Homœopathic Society, in October, 1901. An abler, more spirit-stirring or more carefully thought out address has seldom been delivered before the Society. He brought the general feeling to boiling-point, the address was received with enthusiasm, and in place of the usual vote of thanks for the address, a resolution was moved and seconded that the scheme he proposed be started at once, and that the Council of the Society be requested to form a committee, composed of laymen as well as medical men, to take the matter in hand without delay. This was carried unanimously, and with acclamation.

Dr. Burford, in sketching the progress of homœopathy, pointed out the absence of the forward movement which had formerly characterized it, and how things were allowed to go on in a quiet, unobtrusive, non-militant style, which meant, not standing still, which was really impossible, but, necessarily, retrogression. He pointed out that the old school were ready

to take advantage of this inaction, and that, unless we adopted other tactics, they would, by making use of homœopathy under another guise, gradually absorb us without a word of indebtedness to Hahnemann or to homœopaths. He maintained that now was the time to strike while the iron was hot to take a new lease of activity, and push our doctrines and practice, and to bring them prominently before the public, so as to interest them in what so much concerned their own welfare, as well as the welfare of the greatest law of medical practice that has ever been brought to the knowledge and view of the world. He maintained that the admirable clinical material of the London Homœopathic Hospital should be more utilized, that systematic courses of lectures on the Homœopathic Materia Medica, and Homœopathic therapeutics should be resumed in London and in the larger provincial cities, that an authoritative statement of our tenets and mode of practice should be drawn up, and widely circulated; that original investigations and re-proving of drugs should be instituted, and, in fact, every possible mode of advancing homœopathy should be set in motion.

This scheme, so carefully thought out, was followed up by articles written by various authors and published in the *Monthly Homœopathic Review* in the early months of 1902, in support of the movement.

The first general meeting of what was, at the commencement, called the Twentieth Century Fund was held on April 25th, 1902, at Stationers' Hall, a fine old hall belonging to the Stationers' Company, through the influential kindness of Sir George Truscott. There was a large and representative meeting, with the Earl Cawdor, the Treasurer of the London Homœopathic Hospital, in the chair. Important speeches were delivered by Lord Cawdor, Dr. I. P. Stilwell, Chairman of the Board of the London Homœopathic Hospital, and many others, both medical and non-medical supporters of the cause. An association was then and there formed, called the British Homœopathic Association, with the Earl Cawdor as President, the Earl of Dysart and Lord Calthorpe as Vice-Presidents, and Mr. Joseph Howard, M. P., as Treasurer. The scheme was approved in every detail, and as money was absolutely necessary to initiate and carry out such a work, a fund was started, and called the Twentieth Century Fund, which, it was intimated, must involve the raising of £10,000 (\$50,000). At the meeting the greatest enthusiasm prevailed, and the Secre-

tary was able to announce at its close that nearly £1,000 had been subscribed.

Before the year was out, the entire sum of £10,000 had been subscribed. The ladies, whose aid in all such circumstances is invaluable for their active energy and determination, formed themselves into a Ladies' Committee, and resolved to raise a separate fund of their own, amounting to £1,500, to endow a Traveling Scholarship for the Special Study of Diseases of Women and Children in Well-known Continental Schools of Medicine. This also has been accomplished.

An Executive General Committee was formed, consisting of both medical and lay members. The details of the work took a considerable time to elaborate, and though this seeming delay was criticised by some, yet it was felt that a sound basis and scheme could not be arrived at without time, and without very careful discussion and consideration on the part of the General Committee.

It is truly a great work, and one that, if nothing else did, would signalize the period I am dealing with in a manner that would distinguish it in importance from other periods of time in the propagation of the cause of homœopathy.

The ultimate aim was the establishment of a complete homœopathic college, with the power to grant a degree or diploma. At present, however, in an old country like England, with so many vested rights, and so many legal qualifications already in existence—nineteen in all—with the desire in the old school to add no more qualifications to those already in existence, and with such a minority as represents homœopathic practitioners when compared with the allopaths, a complete homœopathic college is an impossibility. We, therefore, aim at a smaller scheme, for the present, and the following has been now for some time in operation: 1. Systematic lectures on Homœopathic Materia Medica and Therapeutics. 2. The proving and re-proving of drugs after the homœopathic method. Colchicum has been taken up, and the publication of the results will be forthcoming. 3. Scientific research work in connection with homœopathy and the recent investigations of science. 4. Post-graduate lectures on various subjects, and separate lectures on various diseases and their homœopathic treatment. 5. A "Dudgeon Scholarship" for young men, to enable them to go to the United States, investigate and study the styles and methods of teaching there, and to permit them

to attend courses of lectures and instruction in America so as to thoroughly ground them in homœopathic materia medica and therapeutics before commencing private practice in Great Britain. 6. The "Traveling Scholarship" of the Ladies' Branch of the Association for the Study of Diseases of Women and Children in the Great Continental Schools of Medicine. 7. The foundation of a special professional chair, to be called "The Compton Burnett Professorship," for the teaching of homœopathic practice. The raising of the funds required to endow this chair has been undertaken by Dr. and Mrs I. H. Clarke, and already a large part of the sum required has been received by them. 8. By no means the least important feature in the association's work comes the academic and practical courses of instruction for foreign missionaries and missionary students. This course, which is not intended, of course, to produce medical men and women, aims at giving to missionaries who are at home on leave, or are preparing to go out to foreign fields of missionary labor, a general introduction in elementary medicine and surgery. This knowledge will enable them when far away from any regular medical help to treat cases in the first instance, "first-aid," as it were, and so enable them to put their patients in the right path till qualified medical assistance can arrive. In many cases, the knowledge and help rendered possible by this course of instruction will enable missionaries to do all that is necessary for their cases without sending for any qualified aid. The students at this course are also taught the main features of tropical diseases, and, if necessary hygiene. A special course in obstetrics is instituted for women, and a special course of nursing is also given to women. This general, superficial it must be, instruction in the elements of medicine and surgery is given to the missionary students with a training in homœopathy, its principles and practice. All this enables the missionary to act on the instincts and knowledge he or she possesses, and so to be of immense service when far away from any qualified medical man, and it makes him or her a great centre in far-away parts for the spread of homœopathy, its principles and practice. This course has been much appreciated by those for whom it is intended, the attendance has been large, and the results most satisfactory in every respect. 9. The British Homœopathic Association keeps in view also the necessity of teaching the public the doctrines of homœopathy by issuing from time to time

propagandist literature, explaining the principle of Similars and its practical results. A work of this nature is in progress and it is to be hoped will be issued soon. Already the association has printed and circulated among the members of the medical profession of both schools a book entitled "The Permeation of Present Day Medicine by Homœopathy," showing from authoritative writings of the old school, and *from these alone*, to what an enormous extent homœopathy is practically adopted in the old school, without an acknowledgment, however, of the principle involved, or the sources of the information given, or of its great founder, Samuel Hahnemann. 10. The association keeps a special eye on the increased development of Homœopathic Cottage Hospitals and Dispensaries, aiding them with funds when there are difficulties present, to enable them to overcome these difficulties when necessary, and so to set to work important fields of labors which require help in the outset of their life.

The above is a large scheme, but all that is done is necessary for the militant progress of homœopathy; it rouses up and keeps up the vital interests of homœopathy in the minds of the profession and the public, though, for the present, a complete College of Homœopathy is impracticable. The great difficulty at the present time is to get at the student. He is fully occupied with his studies at the recognized schools, and has no time for extra work; he knows that he has to go through his courses of study at these schools in order to get his legal qualification; he is afraid, therefore, in case of awkward complications at his examinations, to be seen at a Homœopathic Hospital, or to seem to have any sympathy with homœopathy; when he gets his diploma to practice, he is naturally anxious to begin to make his living, and so he has no time, after his five years, for further courses of study, while, if he once begins to practice, he is fixed down by work. All this involves the *crux* of the whole homœopathic educational question in Great Britain, and renders such aims as the association has in view very uphill and difficult. It requires determination and perseverance in the right path to succeed.

The British Homœopathic Congresses are held annually in London and in provincial towns are well attended, and are enjoyed much by those who come to the meetings. The social element, as well as the professional work done, combine to render them a species of gathering which no other form of

meeting accomplishes, and which brings together personally men who might not meet each other from year's end to year's end.

All the British Homœopathic Hospitals have in the period under consideration been making substantial and steady progress. The London Homœopathic Hospital, though not a large one, and prevented from enlarging to the extent provided for, owing to the difficulty of a tradesman who cannot be ejected at present, is and has been in a high state of efficiency. Its perfection as a hospital is testified to by all who have visited it, and it is universally looked upon as the finest and most perfect hospital in London. Its medical and surgical staff are enthusiastic in doing all they possibly can, in the way of energy and hard work, to keep up its reputation, and to make it in every point "up-to-date." The clinical material, both in the wards and in the out-patient department, is most valuable teaching for those who attend the hospital, and for the resident medical officers. The number of in-patients is, of course, limited to the number of available beds, while the out-patients increase in number every year, giving extra hard work to the assistant physicians and surgeons, but showing the appreciation of the benefits of homœopathic treatment on the part of the patients.

Extra expenditures resulting from the increase of work, and necessarily involving increase in expense, caused a deficit in the funds of the hospital to the amount of about £14,000, but this, by a great effort, was almost entirely raised last year, and so put the hospital once more in a satisfactory pecuniary state. Means have been taken to add to the annual income, and reduce the expenditure to the lowest point consistent with efficiency. The whole condition of the hospital is now, therefore, in a highly satisfactory state in every way, and it is an institution of which the whole homœopathic profession in Great Britain is, and may well be, proud.

The same, or a similar, satisfactory state of matters is visible in all the excellent provincial Homœopathic Hospitals in the kingdom. The Hahnemann Hospital in Liverpool is a very important, large and well-managed institution, doing an excellent work; the Phillips Memorial Hospital at Bromley, that at Bristol, Tunbridge Wells and Birmingham, the Buchanan Hospital at St. Leonard's, the hospitals at Eastbourne, Plymouth, Bournemouth and Leicester all show marked activity

and corresponding success in the increase in the number of patients, and in the hard work carried on by the medical officers. The marked revival in homœopathy shows itself in fact everywhere, and this inspiring and militant attitude evinced all over Great Britain is perhaps the most salient feature of the whole period of which I have to speak at this time.

The British Homœopathic Society, which meets once a month at the London Homœopathic Hospital, evinces the same new life as is visible in other departments. The list of membership of the society is practically synonymous with the number of homœopathic practitioners in the United Kingdom, the meetings are well attended, the papers read at the monthly meetings are excellent in type and spirit, and their devotion to homœopathy is marked. The discussions after each paper show the active and deep-seated interest taken in the subjects brought forward, and in their bearing on homœopathy. The society is, in fact, in a very flourishing and healthy state, and becomes, every year, more regularly attended and appreciated. Its papers and discussions are issued quarterly as a journal, entitled, "The Journal of the British Homœopathic Society," and is transmitted to every member of it.

Two other journals, the *Monthly Homœopathic Review*, which has this year attained its jubilee, or fiftieth year, and the *Homœopathic World*, are too well known in America to require from me any statement other than that they exist and flourish as the literary aid to the advance of homœopathy in the fullest way that is possible on their part.

We have lost by death quite a number of very valuable and well-known members of our profession in the last five years. Most of them are well known in America, and are as highly esteemed there as in Great Britain. I need hardly do more than mention their names, as anything further would be quite unnecessary; Dr. Dudgeon, who lived to the advanced age of 84, and who had all his life been a pillar of strength to homœopathy. His words, and his various writings in the journals, of the powerful militant type, are such as any one, or any school, might be proud of; Dr. Richard Hughes, as well known in America as here, well known for his writings, his influence and charming personality; Dr. Compton Burnett, also as well known in America as in England; Dr. Robert T. Cooper, Dr. Eubertus Williams, Dr. Hamilton, who lived to an advanced age, and was a personal friend of Dr. Quin; Dr.

Gibbs Blake, best known and much esteemed in England. These, with others less generally known out of England, have all passed away to the majority, leaving their colleagues so much the poorer, but with an example set before them to follow in their footsteps, and to do all in their power to promote the progress and advancement of homœopathy.

This paper is already too long, and I have to omit many details which are interesting to a Briton, but less so to the International Homœopathic Congress. But on the whole we in Great Britain have much to be proud of in the Therapeutic Revival, of which I have spoken, and in the general and great advance in homœopathy, which has marked the last years of our existence.

PRESENT-DAY ICONOCLASM IN MEDICINE. WHAT IT MEANS TO HOMŒOPATHY.

BY

H. M. GAY, M. D., PHILADELPHIA, PA.

ANY ONE who is at all conversant with old-school literature, either periodical or text book, must have noticed in the last three or four years a decided tendency to iconoclasm in things therapeutic. I might go a step further and say that in the last year or two this iconoclasm has become almost nihilism; from a simple turning away from old methods we find that in many instances the old-school authorities are advising, at least in the acute infectious diseases, a totally expectant treatment, as far as drugs are concerned. About eighteen months ago Osler, who is, of course, recognized as the head of the medical profession in the United States, published a series of cases of typhoid fever attended by him in the Johns Hopkins Hospital without the use of drugs, simply depending upon general hygienic treatment, good nursing and gentle stimulation when needed. We find the same idea being carried out in our own city in some of the largest hospitals, notably the Jefferson, where infectious diseases are treated in this manner. Two of the Presidential addresses delivered before the American Medical Association have had the same tone, one stating that our dependence in the medication of diseases must be placed upon a careful and conservative empiricism.

The other stated flatly that the only drug of which we, speaking for the old school, had any definite knowledge, was calomel. Turning a moment to the text books on *materia medica* we find, first, that there has been a breaking away from the old classification; a tendency to accentuate the importance of the tonic or alterative action of drugs and a recognition of the opposite effects of drugs when given in large or small doses.

About ten years ago a different condition of affairs existed. We heard a great deal about "rational therapeutics," which, as near as I am able to judge, is simply an idealized antipathy—if the patient is too hot, cool him off; if he is too dry, soak him; if he is delirious and boisterous, knock him out. This matter was brought to its climax by the discovery of the coal tar remedies, which gave to the medical profession ideal anti-thermics. It is not necessary for me in this paper to repeat the history of the rise and fall of these remedies. I would like to call attention, however, to the fact that when the dangers of acetanilid and phenacetine were recognized the methods were slightly changed and hydro-therapy was introduced in its most aggravated form to take their place. At that time we were advised to bathe our typhoids, and, in fact, all other patients suffering with high fevers, in ice water, or even pack them in ice in spite of their most strenuous objections. I remember a patient of mine treated at the Presbyterian Hospital, who was suffering from malaria, bathed in an iced tub seven times in one day. Needless to say, this treatment has been practically abandoned, at least in this form.

Nowadays old-school periodical literature is filled with articles on intoxication and immunity; how to produce immunity; how to eliminate or prevent the formation of toxins. We read of "vital resistance" and how to stimulate it. Studies in the blood have revealed the fact that the resisting power of the blood is not always the same. We find that the blood may be changed so that we can cultivate, as it were, a specific resistance to certain toxins. We find that leucocytes are sometimes much more active than they are at others. We find that this activity can be raised by injecting into the blood certain substances called vaccines, which are simply an emulsion of sterilized cultures of the specific germs against which we are directing our attack. Ten years ago, if any one had

suggested to the old-school authorities that a boil, we will say, could be effectively treated or a spreading infection could be favorably influenced by internal medication or by any substance injected into the blood outside of general stimulants, the idea would have been scouted. The Homœopaths were ridiculed for prescribing the "hair of the dog that bites you." At the present time the old school are prescribing not only the "hair," but the "dog."

In my opinion these studies in the opsonic index have done more to clear up this matter of specific vital resistance to disease than has been done since the time of Hahnemann. What he saw by instinct a hundred years ago is being laboriously proven in our laboratories. What has been called the monumental achievement in medicine in the last fifty years—I refer to the discovery of anti-toxin—is based upon the same principle.

We find also under discussion at the present time much, both in text books and in scientific monographs, concerning auto-intoxication and its relationship to disorders of metabolism and digestive disturbances. It seems as though, while all our acute diseases are manifestations of intoxication, introduced from without the body, all our diathetic diseases are coming to be considered as manifestations of auto-intoxication. There has been carried on in France a series of experiments showing that metabolic activity can be increased by the giving per-oram, or hypodermetically, small amounts of enormously diluted solutions of the chloride of gold, it being claimed that one part in a million is sufficiently strong to, in some cases, double the amount of the excretion of uric acid in twenty-four hours. It may be truly said that the truths of homœopathy are being proven by its enemies.

What do these things indicate? If they mean anything at all, they mean that we are on the eve of a revolution in therapeutic methods, at least as far as the giving of drugs is concerned.

It may be well for us to consider for a moment, as best we may, what apparent effects this change in thought has had, up to this time, upon old-school practice. In some quarters we see an intelligent inquiry into homœopathic methods. The old school is not wholly composed of fools and scalawags—we find that Koch, of Berlin, states that tuberculinum in large doses aggravates tuberculosis: in extremely minute doses it

helps to cure the disease. This sounds like an extract from Hahnemann's writings on the Nosodes. We find Behring, that great expert on anti-toxin, acknowledging in several of his essays, what he calls "a homœo-therapeutic method of administering drugs," meaning by that what our old-school friends in this country call the "tonic" effect. I should like to mention in this connection that Lombroso, the greatest living anthropologist, is a militant homœopath, which fact does not prevent him from being recognized as an authority. We hear less, nowadays, about the physiological action of drugs, more of the tonic or alterative action, an increasing reliance on this tonic action in severe and acute illnesses. We find also a clumsy and surreptitious dabbling in our drugs. In my own neighborhood we have forced nearly every old-school man to carry a case, partly charged, at least, with such medicines as aconite, bryonia, sanguinaria and iodide of arsenic in homœopathic form. I say a "clumsy" dabbling. While they sometimes blunder upon the proper method of giving these drugs homœopathically, we find them advising twenty-drop doses of gelsemium for the relief of diarrhœa of stage fright. It seems as though they wished to settle the case for good and all. We find them advising giving tincture of aconite in twenty-drop doses three times a day to abort bronchitis, but only in cases that we are sure can bear such strong medication. In other words, if our patient survives the first dose, give him another. We also find a bold-faced rape of our standbys, *e g.*, a lecturer upon therapeutics in Jefferson College, announces with great gusto that he has discovered a specific remedy for follicular tonsilitis and mentions red iodide of mercury in doses of one one-hundredth of a grain. We find many more so-called "discoveries" scattered through old-school literature.

What effect has all this had on our school? In the first place, it has infected, somehow, some of the members of the homœopathic profession with the same pessimistic iconoclasm that effects the old school; shutting their eyes to the cause of this general unrest and overturning of old ideas, and also what must be obviously the ultimate outcome of this change in thought, they seem ready to throw overboard even the sheet anchors and the "life preservers." Men who owe all that they are, professionally, to the fact that they are homœopaths, seem willing to sell their birthright for a mess of pottage. We also find an idiotic optimism which sees all serene. Persons

affected with this germ seem to think that the old school is about to receive us with open arms and that in the course of a few years there will be no division in the ranks of medical men. Nothing could be farther from the truth. Except for a few isolated exceptions, their attitude is the same as it has always been since the discovery of homœopathy. Without reason they threw us out of the ranks of their profession at the instigation of the German apothecaries. Their attitude has been one of intolerance and vituperative criticism ever since. It is so now as much as it was fifty years ago. Within a short time a member of the faculty of the University of Pennsylvania has been threatened with expulsion for consulting with a homœopath. They have treated us persistently, both in the past and now, at the present, as though we were quacks and charlatans. The better element among them acknowledge that we were thrown out wrongfully and yet not one among them would turn his hand to reinstate us in our rightful place in the profession. Not being able to reply to our arguments; not being able to show as good hospital records as ours; the students from our colleges constantly showing better averages than theirs, they pretend to treat us with the most insolent indifference. I say "pretend." The truth of the matter is they go out of their way to belittle us and to bring us into disrepute before the public. They have gone so far as to change the examination questions given out by the State Board upon the eve of the examination, so that their men might have less difficult questions than ours. This malignant influence has prevented our governmental recognition, not only in time of peace, but in time of war, when our country was in danger. They have pursued, and are pursuing us with every weapon at their command. They want to know what we have done. They insolently ask us why we declare ourselves as homœopaths, pretending to forget that they have driven us into this position. They even try to force the public to patronize hospitals and insane asylums controlled exclusively by them. What recognition we have obtained, what success we have met with, we have gotten in spite of their persistent opposition.

The prospect of the old school taking up the work of therapeutic regeneration is remote indeed. They claim that if any changes in the materia medica are to be made, they are the ones to do it. Looking over their past record, I would prophesy

that except in a few isolated instances they would make as little change in their methods in the next fifty years as they have done in the last fifty years. They are so wedded to empiricism that their minds are in no condition to accept any other method of drug prescribing. When they see the results of homœopathic prescribing forced upon them they are sometimes willing to make a test of the drug or drugs themselves. If they do, they do it empirically, never acknowledging that there is any reason for so prescribing, never giving us one iota of credit for presenting the drug to them. I have never met a single old-school prescriber nor, with few exceptions, have I ever read an article in an old-school journal or book that showed the slightest knowledge of homœopathy.

As I said before, I believe we are on the eve of a therapeutic revolution. What front does the homœopathic profession present in this crisis? In the first place, we are divided into three classes: The first consisting of the optimists and pessimists that I mentioned before. These men actuated by diametrically opposite ideas, are both ready to desert the standard of homœopathy, to fly to the arms of the old school. To such I would call to mind the old story of the lamb and the lion lying down together, but with the lamb inside the lion. Then we have our high potency friends, who by their obstinate bigotry would have killed homœopathy long before this if she had not had, like the proverbial cat, nine lives. Fortunately, the high potency class is becoming smaller in number all the time. We have in the other class, the majority of the profession, who might be called the "third estate," or the middle-of-the-road homœopaths, who recognize the fact that the physician has not done his whole duty when he has made a homœopathic prescription, and do not hesitate to use adjuvants or palliatives when they are indicated. Upon this class will devolve the duty of carrying the homœopathic banner in the future. I realize that I am treading on somebody's toes, but I am here to voice the truth that is in me, and I am voicing that which the majority here present know in their heart of hearts to be true.

What, then, is the duty of homœopaths in this emergency? For emergency I verily believe it to be. I would say, too, that I believe this emergency is an opportunity that has never come to us before and may never come again. By that I mean that the brightest minds in the old school feel that their therapeutic

methods must undergo a change and I believe that their influence, coupled with ours, may lead the rest of the profession onto the right track, but to do this we must present a united front. I believe that there can be, and should be, something done to establish a more definite dosage for homœopathic *materia medica*. It is not reasonable to suppose that the human system would react the same to identical doses of roasted oyster shell and prussic acid. The majority present here to-night know that the system does not react the same to all medicines in the same dose. It seems to me that if this matter could be settled, even approximately, that a great stumbling block would be removed. Again, our homœopathic *materia medica*, couched, as it is, in archaic language, classified in artificial classification, loaded down with useless symptoms, vertigo, for instance, is not in a form to appeal to the modern scientific mind. Homœopaths are used to it; they know nothing different, and they make it do. I believe that if our polychrests could be re-proven with the aid of modern methods of precision, that another great stumbling block would be removed. These things do not come about spontaneously. We must take definite action if anything is to be done. The American Institute of Homœopathy is engaged in re-proving the *materia medica*. I believe a copy of their proving of belladonna, which consumed a year's time, is on sale for five dollars. At that rate the work may be partially done twenty-five years from now. Such a *materia medica* would, I presume, cost in the neighborhood of three hundred dollars. Truly a broken reed in time of trouble. I see no reason why our homœopathic colleges should not be re-proving drugs all the time. The students would be glad to enter the proving class for the price of their tuition. Ten or a dozen such provers in each college could be kept busy without placing any undue tax upon the capability of the institution.

Our attitude in this matter should be one of a dignified adherence to principle. We do not have to cringe before the old school. We do not have to hold on to the coat-tails of any individual or individuals in the allopathic ranks. We hold the key to the situation. The scientific *materia medica* of the future must be the homœopathic. If it is obtained by the old school they must do one of two things: Either they must take it from us or they must do the same work that we have done in the way that we have done it. We have stood solid as a rock from the first. We have seen our remedies taken up by the old

school, used according to their methods, thrown out as ineffectual, or dangerous, forgotten, taken up again, used the same way, forgotten again, taken up again. I refer to aconite, which the allopaths are again using according to our indications in our dosage, and they are satisfied with it. So do our provings and methods stand the test of time. This game that the dominant school has forced upon us for a hundred years is about to come to a close and, gentlemen, *we hold the trumps*. Have we the nerve to play it to the end?

THE TREATMENT OF TUBERCULOSIS AT THE TUBERCULOSIS INFIRMARY OF THE METROPOLITAN HOSPITAL, DEPARTMENT OF PUBLIC CHARITIES, NEW YORK CITY.

BY

WALTER SANDS MILLS, M. D., ATTENDING PHYSICIAN.

IN 1875, after much agitation and many disappointments a building under the control of the Commissioners of Charities and Corrections, of New York City, was assigned to the Homœopathic profession for use as a hospital. It was opened for the reception of patients on October 15 of that year. The building was situated on Ward's Island, in the East river, and was named the Ward's Island Homœopathic Hospital. In 1894 the medical attendants, nurses, patients, help and entire equipment were transferred to Blackwell's Island further down the river, and the institution became known as the Metropolitan Hospital.

From the beginning the hospital was the largest Homœopathic hospital in the world. At Ward's Island the building had 579 beds. The main building on Blackwell's Island accommodates about 500. Like the other hospitals belonging to the city, the Ward's Island and later the Metropolitan, had many consumptives among their patients, although all classes of medical and surgical diseases, excepting only the acute contagions, were and are treated. For purposes of convenience the consumptives were placed together in the same ward; later, as the institution grew, in wards by themselves.

The building on Blackwell's Island had been formerly used for the insane. In 1901 the medical board of the Metropol-

itan was notified by the then Commissioner of Public Charities, the Hon. John W. Keller, that another building about to be vacated by the insane would be added to their institution and be placed under their administration. The medical board thereupon asked the commissioner to permit of segregating the consumptives in this building, and consent was given. The building was not vacated, however, until so near the end of Commissioner Keller's administration that he said he would merely endorse the proposition and leave final decision to his successor in office.

On January 1, 1902, the Hon. Homer Folks became Commissioner of Public Charities. During his first week in office a committee from the medical board of the Metropolitan Hospital waited on him and presented to him their request that the new building be utilized for consumptives, together with the endorsement of the Hon. Mr. Keller. Commissioner Folks approved of the idea, and on January 31, 1902, all the consumptives were removed from the main hospital. Later another building was added, and at various times fourteen tents were erected. This department of the hospital was named the Tuberculosis Infirmary of the Metropolitan Hospital. From this account it will be seen that the infirmary was a natural development from the general hospital wards. On the day that the first building at the Infirmary was opened, on that day New York City became possessed of a sanatorium for consumptives—the second sanatorium under municipal control in this country. The credit for its establishment belongs primarily to the medical board of the Metropolitan Hospital, who suggested it; next to the two Commissioners of Public Charities, who gave their official assent.

Today the Metropolitan Hospital with its thirteen hundred beds is the largest general hospital in the United States. Its Tuberculosis Infirmary, with 559 beds, houses more consumptives than any other one institution in the world. And this great institution, belonging to the City of New York, is under Homœopathic medical control.

The Metropolitan Hospital comprises a group of buildings on the upper end of Blackwell's Island in the East river, between the boroughs of Manhattan and Queens. The grounds are half a mile long by an eighth of a mile—the full width of the island—wide, and are surrounded on three sides by tide-water. The grounds are beautifully kept, and the hundreds of

vessels of all sizes and descriptions, making up the immense river traffic on either side, are a never-ending panorama of interest.

The buildings include the main hospital, containing the men's and women's surgical wards, operating rooms, obstetric, children's, genito-urinary and women's medical wards. Other buildings are the men's medical, the lepers' pavilion, the erysipelas pavilion, separate pavilions for the nervous and skin cases. The Tuberculosis Infirmary comprises separate buildings for men and women, twelve tents for men and two for women, and the solarium. The Infirmary has a capacity of 559 beds, although the daily census last winter was frequently over 600, and once reached 629.

All tuberculosis patients applying to the Department of Public Charities for treatment are sent to the Tuberculosis Infirmary of the Metropolitan Hospital. From the day the first building was opened for these cases, January 31, 1902, to September 1, 1906, there were 10,752 admissions. Of these 7,162 were discharged, 3,116 died and 474 remained in the hospital. Of 10,277 patients admitted to July 1, 8,392 were men, 1,885 were women.

Of 9,502 patients whose nationality was recorded, 4,000 were born in the United States, 2,407 in Ireland, 712 in Germany, 633 in Italy, 559 in Russia (Jews), 239 in Austria, 220 in England, 122 in Scotland, 94 in Hungary, 91 in Sweden, 72 in Roumania, 49 in Canada, 45 in Switzerland, 38 in Greece, 35 in Poland, 34 in France, 28 in Norway, 26 in the West Indies, 19 in Bohemia, 10 in Syria, 9 in Turkey, 8 in Denmark, 6 in Belgium, 5 in Nova Scotia, 5 in Japan, 5 in the Philippines, 5 in Spain, 4 in China, 4 in Newfoundland, 4 in Holland, 3 in Palestine, 3 in South America, 2 in Porto Rico, 2 in the Canary Islands, 2 in Finland, 1 in India and 1 in Bavaria.

There were 127 recorded occupations. A few only of those sending the greatest number of patients will be noted, namely: 2,131 laborers, 949 domestic servants, 433 drivers, 307 hotel workers, 294 waiters, 264 tailors, 195 operators (this usually means sewing machine workers), 194 clerks, 191 cooks, 139 porters, 125 peddlers, 115 carpenters. Nearly all trades were represented, and some of the professions, namely: Artists, lawyers, doctors, actresses, musicians, teachers, and so on.

Of 9,903 classified by ages 20 were under 10, 869 were 11

to 20, 2,222 were 21 to 30, 2,513 were 31 to 40, 2,027 were 41 to 50, 1,269 were 51 to 60, 616 were 61 to 70, 345 were 71 to 80, 20 were 81 to 90, 2 were 91 to 100. The youngest female was three weeks old, the oldest 97 years. The youngest male was 11 months old, the oldest 92 years.

The Metropolitan is exclusively a charity institution, supported solely by the city, and no fees of any kind are received. Consequently all patients are of the poorest. Contrary to the vast majority of tuberculosis sanatoria the Infirmary accepts patients in all stages of the disease. Most of them are admitted far advanced. A little more than one-half of the deaths occur less than thirty days after admission. Patients are not committed; all are free to come and go at will. More than half of the discharges leave under thirty days. The reason for their short stay is not hard to find. Roughly speaking, the patients are of two classes—the very hard-working poor and the lowest of the low of both sexes. The moment they feel better the workers feel obliged to try to return to work, the others to their special form of dissipation. And nearly all of the patients improve at first, as a result of regular hours, plentiful food and rest in healthful surroundings.

On admission each patient is bathed, his or her clothing is put away and hospital clothes substituted, and the patient assigned to a bed. The temperature, respiration and pulse are recorded by a nurse. The history of the case and the physical examination are recorded by an interne. All patients are put to bed for the first three days for special observation. All cases of tuberculosis are required to be reported to the Department of Health in New York. When a positive diagnosis is made, therefore, the case is so reported. When a patient leaves, notice of that must also be sent. The Department of Health keeps track of all cases of tuberculosis, fumigating or causing to be fumigated houses or apartments vacated by removal or death of such patients. Much has been done in this way to check the spread of the disease.

Each patient at the Infirmary is obliged to use a cup if in bed, a bottle if up, in which to expectorate. These receptacles are exchanged and sterilized twice a day. The sputa of each case is examined for the tubercle bacillus. Of 7,492 cases where the result of this examination is recorded, the bacillus was found present 4,857 times, absent 2,640 times. If all the physical signs point unmistakably to tuberculosis, the diagnosis is certain, whether the bacillus is found or not.

The three great essentials in the treatment of tuberculosis are fresh air, good food and rest. These are all utilized to the fullest at the Metropolitan. From the description given above of the grounds it will be seen that the supply of fresh air is as great as can be gotten anywhere. The weakest patients are kept in bed. This means that about a third of the cases are bed cases. Those not quite so bad are up and about part of the time. They are at liberty to lie down when feeling tired or weak. The windows of the wards are always open, allowing of a maximum of air. In my wards I have the temperature of each patient recorded twice a day for one week out of every four. All patients whose temperature ranges above 100 in the afternoon are required to lie down then, even if they feel good. Patients whose temperature is always above 100 are bed patients at all times. The most robust patients occupy the tents.

Each tent accommodates twelve patients; there are fourteen of them. The floor is two or three feet above ground in order to allow of a free circulation of air underneath. A wooden wainscoting surrounds this to a height of three feet. The sides above are of canvas. There are two layers of this. The inner layer is fastened to frames which slide up and down like window sashes. The outer layer is attached to frames which swing outward on hinges fastened to the roof. In pleasant weather all the sides are kept open. Even if closed the frames are so arranged that a current of air passes between and enters the tent. They cannot be entirely closed. The roof is double; an inner one of canvas and an outer one of wood. This also allows of free ventilation. At either end is a door, one opening on the grounds, the other on a covered passageway, which runs between all the tents and thence to the main building. This is to allow the patients to get to and from their meals, or to the toilet in bad weather without exposure. These tents are occupied all the year round. In winter they are partially heated by steam, but their temperature is kept at 45 to 50.

The solarium, or sun parlor, is the recreation room for the men who are able to avail themselves of it. It is two hundred feet long by twenty feet wide. The sides are entirely of glass set in window frames. In pleasant weather these are kept open all the time. In bad weather the windows are kept closed on the weather side. Running entirely around this building is a broad piazza, where the men may sit in their

steamer chairs. Distributed about the grounds are benches for the use of the patients. It is truly a delightful spot, and must be seen to be appreciated. At present we have no solarium for women, but hope to have soon. Broad piazzas are connected with the women's tents, so that in pleasant weather they are provided with a place to sit.

In the matter of diet the city is very liberal. The quality and variety of food has been improved from time to time, till now the patients receive a different bill of fare every day for two weeks, and then repeat.

FIRST WEEK.

Sunday.

Breakfast: Rolled wheat, 8 oz.; milk, 4 oz.; 2 eggs; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; coffee, 16 oz.; sugar, $\frac{1}{2}$ oz.

Dinner: Lentil soup, 12 oz.; roast beef, 6 oz.; potatoes, 6 oz.; vegetable, 4 oz.; blanc mange, 6 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.

Supper: 1 egg; stewed prunes, 6 oz.; tea, 16 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.

Monday.

Breakfast: Farina, 8 oz.; milk, 4 oz.; 2 eggs; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; coffee, 16 oz.; sugar, $\frac{1}{2}$ oz.

Dinner: Bean soup, 12 oz.; beef stew, with potatoes, 16 oz.; 1 egg; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; baked suet pudding, 6 oz.

Supper: Macaroni with cheese; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tea, 16 oz.

Tuesday.

Breakfast: Oatmeal, 8 oz.; milk, 4 oz.; meat, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; coffee, 16 oz.; sugar, $\frac{1}{2}$ oz.

Dinner: Pea soup, 12 oz.; roast mutton, 6 oz.; potatoes, 6 oz.; vegetable, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tapioca pudding, 6 oz.

Supper: 2 eggs; stewed prunes, 6 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tea, 16 oz.

Wednesday.

Breakfast: Rolled wheat, 8 oz.; milk, 4 oz.; sugar, $\frac{1}{2}$ oz.; mackerel, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; coffee, 16 oz.

Dinner: Vegetable soup, 12 oz.; roast beef, 6 oz.; potatoes, 6 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; beans, 4 oz.; farina pudding, 6 oz.

Supper: 2 eggs; rice, 6 oz.; milk, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tea, 16 oz.

Thursday.

Breakfast: Oatmeal, 8 oz.; milk, 4 oz.; sugar, $\frac{1}{2}$ oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; coffee, 16 oz.

Dinner: Vegetable soup, 12 oz.; roast mutton, 6 oz.; potatoes, 6 oz.; vegetable, 4 oz.; bread pudding with currants, 6 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.

Supper: 2 eggs; Indian meal and molasses pudding, 6 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tea, 16 oz.

Friday.

Breakfast: Hominy, 8 oz.; milk, 4 oz.; sugar, $\frac{1}{2}$ oz.; 2 eggs; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; coffee, 16 oz.

Dinner: Pea soup, 12 oz.; baked fish, 6 oz.; potatoes, 8 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; vegetable, 4 oz.; rice pudding, 6 oz.

Supper: 1 egg; farina, 6 oz.; milk, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tea, 16 oz.

Saturday.

Breakfast: Hominy, 6 oz.; milk, 4 oz.; sugar, $\frac{1}{2}$ oz.; 2 eggs; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; coffee, 16 oz.

Dinner: Barley soup, 12 oz.; roast beef, 6 oz.; potatoes, 6 oz.; vegetable, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; corn starch pudding, 6 oz.

Supper: Oatmeal and prune pudding, 8 oz.; milk, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tea, 16 oz.

SECOND WEEK.

Sunday.

Breakfast: Rolled wheat, 8 oz.; milk, 4 oz.; sugar, $\frac{1}{2}$ oz.; 2 eggs; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; coffee, 16 oz.

Dinner: Vegetable soup, 12 oz.; fricasee of chicken, 8 oz.; potatoes, 6 oz.; vegetable, 4 oz.; cracker and rice pudding, 6 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.

Supper: 1 egg; potatoes, 6 oz.; apple sauce, 8 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tea, 16 oz.

Monday.

Breakfast: Oatmeal, 8 oz.; milk, 4 oz.; sugar, $\frac{1}{2}$ oz.; 2 eggs; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; coffee, 16 oz.

Dinner: Rice puree, 12 oz.; roast beef, 6 oz.; potatoes, 6 oz.; vegetable, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; cracker pudding, 6 oz.

Supper: Potato salad, 6 oz.; 1 egg; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tea, 16 oz.

Tuesday.

Breakfast: Indian meal, 8 oz.; milk, 4 oz.; sugar, $\frac{1}{2}$ oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; mackerel, 4 oz.; coffee, 16 oz.

Dinner: Mutton broth, 12 oz.; roast mutton, 6 oz.; potatoes, 6 oz.; vegetable, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; apple tapioca pudding, 6 oz.

Supper: 2 eggs; apple sauce, 8 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tea, 16 oz.

Wednesday.

Breakfast: Hominy, 8 oz.; milk, 4 oz.; sugar, $\frac{1}{2}$ oz.; meat, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; coffee, 16 oz.
 Dinner: Barley soup, 12 oz.; beef stew with potatoes, 16 oz.; 1 egg; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; bread pudding, 6 oz.
 Supper: 1 egg; apple and cracker pudding, 6 oz.; milk, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tea, 16 oz.

Thursday.

Breakfast: Rolled wheat, 8 oz.; milk, 4 oz.; sugar, $\frac{1}{2}$ oz.; 2 eggs; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; coffee, 16 oz.
 Dinner: Vegetable soup, 12 oz.; roast mutton, 6 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; potatoes, 6 oz.; vegetable, 4 oz.; farina pudding, 6 oz.
 Supper: 1 egg; butter, $\frac{1}{2}$ oz.; tea, 16 oz.; bread, 4 oz.; Indian meal, 6 oz.; milk, 4 oz.

Friday.

Breakfast: Oatmeal, 8 oz.; milk, 4 oz.; sugar, $\frac{1}{2}$ oz.; 2 eggs; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; coffee, 16 oz.
 Dinner: Bean soup, 12 oz.; baked fish, 6 oz.; potatoes, 8 oz.; vegetable, 4 oz.; tapioca pudding, 6 oz.; bread, 4 oz.; butter $\frac{1}{2}$ oz.
 Supper: 1 egg; macaroni with tomatoes, 6 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tea, 16 oz.

Saturday.

Breakfast: Hominy, 8 oz.; milk, 4 oz.; sugar, $\frac{1}{2}$ oz.; meat, 4 oz.; bread, 4 oz.; butter, $\frac{1}{4}$ oz.; coffee, 16 oz.
 Dinner: Beef soup, 12 oz.; boiled beef, 6 oz.; potatoes, 6 oz.; vegetable, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; rice pudding, 6 oz.
 Supper: 2 eggs; farina pudding, 6 oz.; milk, 4 oz.; bread, 4 oz.; butter, $\frac{1}{2}$ oz.; tea, 16 oz.

Besides the three meals, hot milk is served at 6 A. M., milk, chocolate or egg nog, at 10 A. M. and 3 P. M., and milk again at 8 P. M.

The above is the regular diet for the patients up and able to eat. It includes three eggs and forty ounces of milk daily. Light diet calls for four eggs and sixty-four ounces of milk, toast and articles selected from an extra list.

Liquid diet calls for forty-eight ounces of milk, broth, scorched farinaceous food and albumen water.

Extra diet is selected from the following: Beef, mutton, chicken and clam broth. Beef juice, scraped beef, steak, chops, bacon, custard, simple puddings, wine and lemon jellies, junket, fresh fruits, emulsion and sherry as per doctor's order.

The therapeutic treatment varies somewhat with the physician on duty. A few experiments have been made with the various serums. Other experiments have been made with other accepted methods. Most of us have become convinced that the indicated Homœopathic remedy is the best. There are more than fifty physicians on our visiting staff, and all are trying to get the truth.

Stimulants and cod liver oil are not routine remedies. In very bad cases palliatives are sometimes used.

Our patients are classified in a rough way, according to the severity of the lesions. Of 10,057 cases so classified, 642 were in class A—the incipient stage; 3,773 were in class B—had fever, cough, sweats, presented the tubercle bacillus, but had a fair amount of strength, and had a fighting chance; 4,657 were in class C—all symptoms more marked than in the preceding class; 985 were in class D—hopeless.

Of 10,072 cases where the symptom of hemorrhage was noted, it was present in 4,432, absent in 5,640. Of 9,696 patients where the symptom of sweats was noted, it was present in 5,876, absent in 3,820.

The cases received at the Infirmary are not, most of them, hopeful cases. They are sick, very sick. They have kept at their usual avocations till the last moment, almost to the state of collapse. As a result the death rate is high, 28 per cent. More than half of these die within thirty days after admission.

All patients not absolutely beyond help improve at first, simply because they have a sufficient supply of food, fresh air and can rest. Many leave after a few days or weeks, feeling better, only to return later in worse condition than at first. I believe quite a percentage of these could be permanently cured if they could only be persuaded to remain under observation for a sufficient length of time. I believe, however, it would be a dangerous usurpation of authority to have consumptives regularly committed to institutions. The communicability of the disease has been vastly overrated, in my opinion, and if the patient cannot be kept under observation the loss is his own.

A few cases have remained at the Infirmary long enough to be cured, permanently so far as known.

Tuberculosis is a curable disease. But when it has once gotten hold of a patient its cure is a matter of months, not

days or weeks. Fresh air, good food and rest are essential. For these reasons special places are necessary, places easily accessible to centers of population, places with plenty of out-of-doors, places supported by the state or the municipality, where the poor may be cared for as long as necessary. The rich are able to provide for themselves.

There has been a general awakening of interest in the subject of tuberculosis throughout the civilized world in the past four years. It is one of vast importance to the community at large.

INTRODUCTION TO A STUDY OF NATRUM MURIATICUM.

BY

EDUARDO FORNIAS, M. D., PHILADELPHIA, PA.

NATRUM MURIATICUM is a remedy which has an extensive application in our school, and this notwithstanding severe criticisms from so many quarters. It is one of the drugs reprobated successfully at Vienna, and the fact that it is the only mineral salt added artificially to our food, has recently led our opponents to interesting observations as to the effect of its abuse, prolonged use and abstinence from it.

We all know how absolutely necessary is *Chloride of Sodium* for animal existence; how its complete withdrawal would bring about serious tissue-changes and death; how it occurs in all the tissues and fluids of the body, how indispensable it is to the blood-plasma, how it exists normally in the blood, where it keeps the fibrin and albumin in solution; how it plays a most prominent part in connection with the diffusion of fluids through animal membranes; how its presence is necessary for the solution of globulins (native proteids insoluble in distilled water, but soluble in dilute neutral saline solution); how normal salt solution (0.65 per cent.) renders water non-irritant to the animal tissue and harmless to the red-blood corpuscles, and how it accumulates at the seat of inflammation, disappearing temporarily from the urine and reappearing when improvement takes place. But, probably, few of us only know, that recent investigations have conclusively proved the efficacy of *common salt* in correcting and even arresting *suppurative tubercular processes*; in raising, when subcutaneously in-

jected, the arterial tension in *paroxysmal tachycardia*, *cardiac debility* and *acute anemias*; and showing by its withdrawal from our diet, the influence it exerts upon *asystolic attacks*, *cardiac œdemas* and *other cardiopathic symptoms*.

Dr. Paul Reynier (*La Tribune Médicale*) states that, having been impressed by the improvement and occasional cures effected in cases of *localized tuberculosis* by repeated and prolonged sojourns at the *chloride of sodium springs*, he was led to employ a solution made from such a source, in the treatment of *cold abscesses*, *adenitis*, *tubercular arthritis*, &c., and the results were so encouraging that he did not hesitate to report his success. In cases of *cold abscess* and *suppurating adenitis*, after evacuating the pus, he irrigated the sac with a solution consisting of 3 to 4 tablespoonfuls of the *chloride-spring-water*, added to a litre of ordinary water. This solution is boiled and filtered. In *adenitis*, after the abscess is opened and irrigated, it should be dressed with sterilized gauze saturated with the salt solution, which is made stronger and weaker according to the sensitiveness of the skin. Cases of *fungous arthritis* of the elbow, wrist and hips, as well as *adenitis* and *tuberculous abscesses*, were cured by Reynier, who claims that *chloride solutions* are unquestionably a valuable adjuvant to surgical treatment. He further states that in certain resections of the joint, after the bone lesion has been removed, and the fungosities, notwithstanding the great care exercised, could not be thoroughly cleansed, these baths or irrigations of *salt-water solutions* have effected a complete cure.

These results were corroborated by the experiments of Quinton and Fourniol, to determine the favorable action of the subcutaneous injections of salt water on *tuberculous subjects*. It has been even asserted that *chloride of sodium solution*, externally applied by friction, is very useful for *articular asthenia* and *congenital malformations*, due to contraction of the muscles and its tendons.

Equally interesting is the assertion of Quinton and Lachéze, that *sea-water diluted*, injected under the skin favors, better than a simple solution of *chloride of sodium*, the organic functions. Dr. Lachéze injected under the skin the *sea-water*, previously diluted with spring water, then sterilized and filtered, in various children showing signs of hypothermia, feeble respiratory impulse, imperfect suction and deglutition and marked torpor, all indicating a *lowering of the vital functions*. Two

of the children had besides a *green diarrhœa*, but, in all them, the result of the treatment was a rapid renewal of the vital activity and an amelioration of the general condition, with increase of weight.

But the first investigator of *Chloride of Sodium retention and elimination* was Professor Fernand Vidal, of Paris. He undertook a series of researches some years ago, associated with Lamierre, Javal, Froin and Digne, and Winter. After them, Cohnstein, Langlois, Ch. Richet, Hallion, Carrion, Reichel, Chauffard and Achard, worked up the subject with verifying success. The results of Vidal's labors deserve especial mention, and be placed at the top of the most important medical innovations of the day. His studies on *Chloremia* and on the *Pathogenesis of œdemas* has brought him forward, as an authority on the subject (*La Cure de de'chloruration dans le mal de Bright.—Paris*). The diatetic method, which has as a base the *restriction and suppression of alimentary salt*, was at once put to test, and to-day is of admitted value and acceptance. Besides, in *Bright's disease*, a *hypoclarated regimen*, has found application in *cardiopathic conditions, ascitis, phlebitis and exudative dermatitis*. Vidal has outlined, in a striking manner, the results we may obtain by a dechlorurated diet. Of course, this practice requires a previous knowledge of the need of salt by the organism; of the chloride-equilibrium and relations between chloruration and hydratation; of the relative renal impermeability for chloride; of the nature of accidents revealing chloride retention, and of the characteristics which distinguish them from those observed in lithimic accumulations. Vidal and Lemierre have conclusively demonstrated, by methodic experiments, that, in certain subjects suffering from *Bright's disease* the *sole ingestion of Sodium Chloride makes the œdema reappear*, and they state that meats, albuminoids and the most varied substances give the same favorable results as milk, provided SODIUM CHLORIDE is entirely excluded in their preparation.

With Javal, Dr. Vidal has also studied the *dechlorating action of several diuretics* and demonstrated the relation which exist between *chloruration and brightic albuminuria*; and finally, with Froin and Digue, took up the study of *dechlorization in cardiopathic conditions*. Strauss declares that milk-diet acts favorably in *Bright's disease* on account of the small quantities of salt thus introduced into system. Vaquez, how-

ever, who, by the way, is among those who have found that *chlorated polyuria* is a means by which *cardiopathic symptoms* are relieved, recommends *dechlorated alimentation in asystolic conditions* in preference to a milk-diet, which makes necessary the absorption of from 3 to 5 grammes of salt a day.

Other valuable researches about *chloride-retention* have been made by Achard, of Paris (*Le rôle du sel en pathologie.—Le rôle du sel en thérapeutique*, Paris, 1904.), who, with Loeper and Laubry, advanced the hypothesis that the accumulation of *Chloride of Sodium* and other substances dissolved in excess in the blood, play an important part in the *pathogenesis of Bright's disease*. Claude and Mauté based their indications, as to the prognostic gravity of nephritis and the necessity of a milk-diet, on the *elimination of chlorated and achlorated elements*, after the *test of alimentary chloridization*.

Among the *causes of dyspeptic disorders in cardiac disease*, Fiessinger, of Bruxelles, includes the *abuse of salt*, and in the class of patients who use too much salt, he recommends *alimentary dechlorization*. According to this authority, food should be with none or very little salt, it acting unfavorably in *hyposystolic* conditions. He claims that in *defective urinary depuration*, besides the cardiotonics *digitaline* and *theobromine*, the alimentary regimen should be watched. Very little salt, little or no meat, is the rule. In fact, vegetables and milk do make a better diet than meat. Bear in mind, however, that while patients in *hypo or asystolic conditions* should be very moderate in the use of salt, its complete suppression would aggravate the gastric atony.

According to a report, recently published by a French journal, Professor Ch. Richet and Dr. Toulouse were really the first to look into the action of *hypochlorization*. It is asserted they proved, that in *epileptics, under dechlorization*, the dose of *bromide of potassium* could be reduced to half, and that the patients supported well the *salt-diet*. These labors do not show the importance of those of Widal, but probably it is from this source that Dr. Alfred Gordon, of Philadelphia, got inspiration for his interesting and valuable researches, reported in the *Pennsylvania Medical Journal* for October last. He claims that in 30 cases of *epilepsy* under his observation the *suppression of alimentary salt* reduced the frequency and severity of the seizures. He emphatically asserts, "how interesting it was to observe on many occasions that, everything being equal, in-

discretion on the part of some patient, with respect to salt, had its almost immediate echo in the general health and this would follow in a short time by a seizure." "This was so remarkable, he states, "that one would get the impression that Na. Cl. is a direct exciting cause of epilepsy." We homœopaths know for many years that NATRUM MURIATICUM has produced and cured epileptic fits (*Jahr's Nervous and Mental Diseases*, 1864).

Very interesting to us is also the discussion that followed the reading of Dr. Gordon's paper at the Bedford Springs last September. Dr. Guy Hinsdale, of Hot Springs, Va., stated that *nephritis* should not be treated with anything that tends to store up in the systems the *chlorides*, and that renal disease and epilepsy are somewhat allied in that respect, because we are familiar with the convulsions that occur in advance renal disease, and this forms another point of contact between the two affections. He corroborated Dr. Gordon's assertion, when he stated that, in any form of *epilepsy*, we should restrict the chlorides from the food and that if any mineral water is required, we should choose those having the *smallest amount of Chloride of Sodium*.

We are following with interest and solicitude these researches, for they concern us very deeply, and our Dr. Sauer, of Breslau, in a paper on *nephritis* (*Allg. Homœp. Zeitung—Sep. 1906*), solemnly declares he has verified that—1. The absolute abstinence of salt, in the healthy individual, produces *albuminuria*; 2. The excess of salt in the food brings about the same results; 3. The total suppression of salt in a nephritic patient lowers notably the quantity of albumen in the urine; 4. The excess of alimentary salt, in those suffering from *nephritis* increases the existing proportion of albumin and the drop-sical effusions.

I was encouraged myself, after reading some time ago, an article of Huchard (*Consultations Médicales*) on *tachycardia*, to try *dechlorization* in three cases of goitre, two simple and one exophthalmic. Of the two cases of single goitre, one, an old maid, would not endure the exclusion of alimentary salt in her diet and gave up the *lacto-vegetarian regimen* imposed, the other a hysterical woman, has been highly benefited by dechlorization and the same has been the case with the exophthalmic patient, which, by the way, is a deaf and dumb lady. My observations, though scanty, lead me to think that there is

a profitable field for research in this direction, and I hope some one in authority at the Hahnemann will take up the work, where there are ample opportunities and material to verify the statement.

From what I have seen and read, I am perfectly convinced that the presence of salt in the food, beyond the needs of the system, disturbs metabolism and brings about important tissue changes. It certainly must have a powerful influence upon nutrition and secretion, for it seems to maintain active pathological processes already established and which probably itself have aided to create.

The favorable action of *dechlorization* on the cardio-vascular and motor systems, as well as upon the thyroid gland itself, observed in my cases, conclusively proves how detrimental to health the excess of the crude substance must be, and how in a potentized form it may be proved curative of the same conditions.

Hahnemann, Jahr, Boëninghausen and others have for many long years recommended NATRUM MURIATIC. for the very diseases in which our friend's experiments have found *dechlorization* so effectual.

The above observations, at any rate, allow us to infer that *Chloride of Sodium*, when absorbed in excess of the normal requirements of the body, causes many digestive, cardio-vascular and respiratory phenomena, indicative of *destructive metabolism, with great impairment of the blood-life*.

These are the valuable results that have been obtained by our opponents with NATRUM MURIATICUM, a drug which, even some of our men hold inert and useless as a remedy, but in this direction, I think, the future has yet in store many surprises for us.

COPAIBA: AND SOME OTHER THINGS.

BY

P. W. SHEDD, M. D., NEW YORK.

THE foundation of homœotherapeusis was surely well laid, for few modern pathogenies or re-provings have amplified its usefulness or done more than corroborate the historic data. Now and then among the moderns, a drug like gelsemium appears, polychrestic, imposing, very serviceable; or drugs, such as cimicifuga, caulophyllum, helonias, hamamelis, liliun tigrinum, sanguinaria are developed, whose organopathic actions, indicated by aboriginal usage or clarified by excellent provings, have become indispensable; but, the strenuosity of modern life does not tend to the production of polychrestic pathogeneses; it is rather taxed to the utmost in the assimilation of the accumulated pharmacodynamics and the progress developing along other lines of therapeusis.

Probably the most effective service that can be rendered to *materia medica* is the eradication of a nearly interminable list of agents dubbed "medicinal"; substances animal, vegetable, mineral added thereto by some enthusiastic but isolated observer, who imagined curative results from the use of such substance where restoration to health was due entirely to an unaided vitality or to vitality reinforced by rest, diet, hygiene, nursing.

Therapeutic gold dust and nuggets are obtainable difficultly enough, without the addition of a rubbish of imagination or the debris of false conclusion. If modern provers will investigate whether many of the things indexed at present in the *materia medicas* have actually any claim to the title of "drugs," the work of elimination may evolve pleasing or unpleasing surprises—according to the point of view.

Drugs may be divided into two great classes: 1. The non-toxic, essentially biochemic and hence anabolic or katabolic in function, and possessing in attenuation a frequently marvelous influence over metabolism. 2. The toxic drugs whose introduction into the economy means a revolt of vitality against the noxious agent: the establishment of a drug-disease with an invariable functional (if not organic) pathology, which, technically, is termed a pathogenesis.

Copaiba rates in the second class, and, since large quanti-

ties are necessary to evoke much disturbance, it may be said to have a low toxic index.

The recent proving of copaiba by the department of drug pathogenesis of the University of Michigan is a meritorious effort, but copaiba is a too ancient and well-known instrument upon which to waste energy; its use and sphere have long been well defined. The time and labor spent in re-proving drugs familiar to both schools might, practically, be better lavished, as previously remarked, upon a long list of "drugs" now encumbering the text-books and thrown in haphazard by the unscientific or the credulous. If what is known as the "old school" ever avails itself of the resources of homœo-therapeutics, its first action will be along eliminative lines, and the query will be put: "This was your science; why did you not perfect it?"—which outburst will be gently deprecated by the "purists," most of whom could not be induced to prove a drug in tincture even if it killed them. Ach, du mächtiger Hahnemann!

To proceed:

In the following condensation of the Michigan day-book reports the drug scheme stands:

HEAD.

Dull congestive headache, chiefly frontal; frequently severe; throbbing at short intervals. Worse from motion, from cold air, at night, from reading; ameliorated in one instance by compression; when recumbent.

EYES.

Congestion; drawing or retractive sensation; aching, burning, lachrymation.

NOSE.

Rawness. Soreness in right nostril, with formation of scab which is very sore.

Nose dry and burns; dry scabs; crusts, with some bleeding on removal.

Hyperemia, especially of the right side.

Dry, as if astringed.

Nasal symptoms worse lying down; nose feels stuffed up, compelling mouth-breathing.

Subjective nasal sensations (rawness, soreness, dryness, burning), apparently in excess of objective symptoms present.

THROAT.

Mouth, pharynx, soft palate, tonsils, larynx, vocal cords, congested. Throat dry, hot.

LIMBS.

Some muscular aching, soreness.

Burning of hands and arms.

DIGESTIVE TRACT.

Pronounced eructation and flatulence. Eructation with the odor of ingesta; marked flatus, offensive.

Stool small, soft, brown, difficult to expel, with tenesmus. Pain before, during and after stool.

Stool large, hard; much straining.

Diarrhœa, with eructations, flatus, borborygmus, sensation of sliver in anus (one prover).

Anal soreness when defecating, smarting and burning.

Some abdominal gripes.

SKIN.

General itching; in spots; on covered parts only.

GENITO URINARY TRACT.

Some burning of urine.

Urine increased in quantity; in frequency.

BACK.

Lumbar pain; weariness about hips and lumbar region.

Dull sacral ache.

GENERAL.

Lassitude; languor; malaise; restless sleep; anorexia.

Vertigo; feels as if walking on air, the ground seeming to be too far away.

* * * *

The irritant action of the balsam (even in the small dosage used) upon the gastro-intestinal mucosa is evident; the head and skin symptoms are plainly due to the chylo-poietic disturbance; the naso-pharynx is another point of attack, but, in this proving, the genito-urinary sphere, which both old and new school data confirm as a great objective of copaiba, offers little evidence of its prescribable value in affections of the tract.

In the gastro-intestinal tract, the skin, the naso-pharynx (even including the symptomatology of more ancient and extensive pathogeneses) copaiba will be little used for greater drugs cover these regions, but that there is a specific, *i. e.*, homœopathic, relationship between the copaiba disease and certain forms of gonorrhœal urethritis is a matter of clinical history; furthermore, clinical evidence seems to demand a dosage of this drug at variance with the doctrine of infinitesimals, but not necessarily the less homœopathic. If the use of the 30th or 200th potency of copaiba has caused a cure of gonorrhea, the data are not known to the writer; old school literature, however, is replete with cures from massive doses, even 60 drops of the tincture. The size of the dose does not invalidate its specific action, and we are of opinion that terror too often strikes the souls of some practitioners lest a drug aggravation ensue from a large or repeated dose. It depends upon the drug. Drug aggravations *per se* are not over-serious affairs; with the cessation of the drug they ordinarily disappear—and a troublesome morbidity removed may serve to justify certain drug aggravations.

The single dose, the minimum dose and patience to wait are essential in many cases; the massive dose and the repetition thereof may be equally essential (and quite as homœopathic) in others.

To conclude this discussion of copaiba—and some other things, the chief practical use of the drug will be in

Gonorrheal Urethritis

with which the copaiba molecule appears to have specific relation when there is:

Urethral swelling and inflammation with pulsating pains

through the penis; constant, ineffectual urging to urinate, passed *guttatim* with burning and smarting in the urethra and neck of the bladder. There is itching, biting and burning in the urethra before and after urination; the urine may have a violet odor. Discharge acrid, corrosive, milky or profuse, yellow, purulent; sometimes bloody urine with frequent urination and chordee. Violent nocturnal erections.

The gonococcal toxin may further induce in greater or less degree such systemic disturbances as are pictured in the full pathogenesis of the gastro-intestinal tract, the naso-pharynx and the skin. In rheumatoid sequelæ, copaiba has been found useful where the knee joints alone were involved.

THE CAUSES AND TREATMENT OF POST-OPERATIVE ILEUS.

BY

HOMER I. OSTROM, M. D., NEW YORK.

(Presented to the Bureau of Surgery of the Homœopathic Medical Society of the State of New York, October 16th, 1906.)

Our understanding of the etiology of any particular disease will be increased in proportion as we study disease in general, and our treatment will become more intelligent if we regard special manifestations as parts only of the morbid action induced by certain combinations of circumstances, which thus become the specific factors.

Septic intoxication is always the same, plus the special septic organism, the method of its introduction, and the parts involved. All forms of peritonitis agree in certain features, which form the basis of the disease, the varieties of the inflammation, and the sequelæ, depending upon the agents active in inducing the morbid changes.

The ileus that may follow a laparotomy does not differ from other intestinal obstruction, save in the fact that it is post-operative, the surgical procedure here acting as the specific cause. That is to say, the chief causes of intestinal obstruction are, mechanical, septic and adynamic, any one of which may exist without opening the abdomen.

This comprehensive view of the disease will have the effect of broadening our understanding of particular manifestations, greatly assisting the specialist in his diagnosis and treatment.

at the same time that it prevents him from regarding the groove of his specialty the all important matter for consideration.

No clinical classification of post-operative ileus has been entirely satisfactory; though wanting in scientific accuracy, possibly a division into early and late cases will serve the most useful purpose, inasmuch as the period of development corresponds quite closely to the specific cause, the early cases, those occurring during the process of healing being generally associated with septic infection, and the late cases, those that develop when convalescence is accomplished, it may be several weeks after the operation, being due to mechanical causes. But it is evident that either one of these divisions may overlap the other, the septic cases passing over into the mechanical, and the mechanical inducing septic intoxication. Our results will be more satisfactory if we establish the broad diagnosis of ileus, and treat this according to its special phases, without any attempt at making a more accurate classification.

By far the most frequent cases of post-operative ileus are those that develop early, and are due to infection; when early obstruction is not septic the mechanical cause has probably been present before operating, and is only called into activity by intra-abdominal manipulation. Old bands, the remains of previous peritonitis being disturbed, constrict coils of intestine, and cause obstruction early in the post-operative history. It may be difficult to differentiate such cases from septic ileus, and peritonitis, in point of fact, the three conditions soon co-exist, for a mechanical obstruction cannot be present for any length of time before giving rise to degeneration of the intestinal walls, that without direct infection favors the accumulation of pathologic micro-organisms, and their early passage into the peritoneal cavity. The later generation of poisonous substances completes the clinical picture of septicæmia.

Between septic peritonitis and ileus, it is also difficult to diagnose, for that in their incipency the two conditions may exist independently of each other there is ample evidence.

All cases of septic intoxication have certain features in common, and whether the special case is one of septic peritonitis, or septic ileus, it matters little, but as long as the process is limited to the peritoneum, in particular the parietal peritoneum, there is not noticeable the enormous accumulation of gas, nor reverse peristalsis, that belong to obstruction. There

are present the characteristic pulse and temperature, abdominal distention and gastric disturbance of peritonitis, but the abdomen is drum-like, the vomitus is not regurgitant, and the bowels respond to enemata and cathartics.

When septic ileus develops or supervenes, peristalsis is at first increased, to later entirely disappear. This clinical sequence I look upon as valuable in diagnosis, and if it can be obtained for cases seen late in their history, will assist to clear the understanding of otherwise obscure conditions.

The rationale of post-operative ileus, that is to say, why septic intoxication induces intestinal paresis, is probably a combination of factors. The initial peritonitis is usually local, causing oedema of the intestinal walls, vaso-motor disturbance, and interference with the nerves of the intestines—Auerbach's plexus. The latter would seem in some instances to be a late manifestation, possibly due to absorption of toxins, which act specifically upon the abdominal splanchnics. The toxæmia, however, is probably more especially concerned with the effect of the obstruction, and is due to retention of the intestinal contents.

One of the most important factors in the etiology of post-operative ileus not primarily due to sepsis, but which may lead to septic intoxication, is the injury inflicted upon the abdominal viscera at the time of operation. Chilling and contact irritation excite the splanchnics, which gives rise to spinal inhibitory impulses, leading to rapid exhaustion. The "Law of the Intestines," inhibition and augmentation, is thus interfered with, and paresis results, with absorption of toxins, and sepsis from stagnation of intestinal contents. Septic post-operative ileus, therefore, may be primary or secondary. Primary when sepsis is the early and dominating factor, preceding intestinal paralysis; secondary when the initial process is the direct result of operative trauma—injury to the abdominal nerves—sepsis developing as a later feature of the case.

Peritonitis, either local or general, is always present. This may be secondary to the obstruction or precede the ileus. The latter is difficult to understand. As before stated, it may be due to oedema of the intestinal walls, thus mechanically closing the calibre of the canal, or it may be caused by vaso-motor disturbances, or lastly, it may be, a direct effect of the toxins upon the nerves of the intestines. It is quite probable that whatever is the initial factor, the others soon develop, and thus the etiological picture is a composite one.

The ante-operative condition of the patient has much to do with the development of ileus, and this will concern the preparatory treatment to which the patient is subjected. Active catharsis, by removing the natural intestinal stimulus, favors paresis, and I have ceased to regard as favorable the entirely collapsed intestine that we formerly welcomed, upon opening the abdomen. Such an empty intestine has nothing to act upon or to excite peristalsis, and the patient is handicapped when she is summoned to endure the shock to the abdominal nerves, incident to a laparotomy.

While it is advisable to clear the intestinal canal of undue fecal accumulation before an operation, the violent catharsis of early days was beyond doubt harmful, for it not only predisposed to paralysis, but it was the means of removing necessary fluid from the system, causing intense thirst, and the retention of the undiluted effete solids of metabolism.

The diagnosis of post-operative ileus may be a very easy matter, or it may be attended with difficulty. Colicky pains, the accumulation of gas, constipation, increased peristalsis, elevated temperature and increased pulse rate, with vomiting, occurring soon after a laparotomy, even though supposedly clean, almost certainly indicate ileus of septic origin. There is local peritonitis, made evident by a corresponding area of sensitiveness and pain.

Differentiation between septic ileus and septic peritonitis—the two almost always exist together—will rest largely upon the condition of the bowels. In uncomplicated septic peritonitis there is frequently colliquative diarrhoea, the bowels moving freely, even involuntarily, at the same time that emesis continues, distention increases, and the general symptoms of toxæmia make up the clinical picture.

Late post-operative ileus, in the majority of instances due to mechanical obstruction from old bands of adhesion, presents much the same group of symptoms, with the exception of the pulse and temperature; these remain unaffected until the absorption of toxins from retained intestinal contents, give rise to symptoms of septic intoxication. The bowels remain torpid.

Post-operative ileus, whatever may be its cause, admits of no delay in treatment, or uncertainty concerning the results that must be quickly obtained. The first object is to restore intestinal activity, and this let it be understood means more than an action of the bowels induced by cathartics. Such may

be only a mechanical emptying of the canal, and in no sense a restored function, to be followed by a profounder paresis. If our remedies are to do anything, they must do more than this, they must act upon the intestinal nerves in such a manner as to restore the "Law of the Intestines."

I must confess that I am skeptical as to the power of remedies to accomplish much in this direction. If the case is septic, toxæmia must be controlled before the ileus is relieved, and where will we find a remedy, or group of remedies, that we can trust with this in view? If the case is mechanical, due to bands or kinks, can we expect an internal remedy to remove the mechanical cause?

The diagnosis of post-operative ileus carries with it the necessity for radical treatment. If after a few hours' trial of enemas, cathartics, or possibly the Atropine treatment, with which I have had no success, the conditions do not improve, an operation must be resorted to. The general condition of the patient in acute post-operative ileus is not favorable for a prolonged operation, or much handling of the abdominal viscera, therefore the manipulation that is usually necessary to discover the seat of obstruction is liable to increase the paresis, and prove fatal to the already exhausted patient. Even the most extensive manipulations can accomplish but a single object, relief of pressure, by evacuation of the intestine of its contents, feces, gas, etc. Simple opening of the intestine on the proximal side of the obstruction will accomplish all this, with a minimum degree of trauma and shock.

Of course, it is not maintained that this treatment has anything to do with removing the cause, or will in itself control the septic poisoning, but it removes an important obstacle to the return of the normal bowel function, and affords an opportunity to exhibit our remedies and treatment, unhampered by dangerous obstruction. With the intestinal canal active we rid the system of toxines that aggravate and increase the already profound septicæmia. The operation of opening and draining the intestines is rapidly performed, and if done before the patient has become profoundly toxic, adds but little to the already existing depression.

Enterostomy for septic post-operative ileus to be effective must not be delayed. Upon the diagnosis should follow quickly the operation. If the conditions are not favorable for general anæsthesia, local anæsthesia may be used. If the seat of ob-

struction can be located, the external incision should be made to correspond to the most prominent coil of intestine; if not, a median incision affords ample room for manipulation. Prolonged search is not necessary, the section of intestines that presents at the incision should be rapidly sutured to the peritoneum, freely opened, and irrigated with salt solution until empty of gas and feces, and the patient placed in bed, in the half-sitting position.

To maintain drainage of the intestine, which is absolutely essential to success, I use a drainage retractor, similar to the self-retaining abdominal retractor, though smaller, and much lighter, that fits in each side of the opening into the intestine, and holds the lips of the incision apart. Repeated irrigation of the intestine is essential, and encourages peristalsis. Repair of the damage to the intestine and the abdominal wall may be made when convalescence has become assured.

SOME DIFFERENTIAL POINTS IN (a) CLEARING CLOUDY URINE; (b) TESTING FOR ALBUMEN.

BY

JOSEPH C. GUERNSEY, A. M., M. D., PHILADELPHIA.

(Read before the Clinico-Pathologic Society of Philadelphia.)

THE examiner of many urines is frequently puzzled by a *cloudy* urine, the cause of which seems obscure. The following pointers are intended as helps in clearing up the subject; they may be resorted to in the order named and prompt results can be looked for.

First: Warm slightly the cloudy urine. If the cloudiness is due to urates, it will quickly become clear.

Second: If heating fails to clear the urine, to an ordinary six inch test tube, two-thirds to three-fourths full of urine, add twelve drops of acetic acid. If the urine clears totally or even partially, the cloudiness was more or less due to phosphates.

Third: Should any cloudiness remain, add Hcl. If the cloudiness disappears, it was due to abundant calcium oxalate.

Fourth: If cloudiness continues, use Donné's test for pus—i. e., add liquor potasse (Sodium Hydrate), when the pus will become gelatinous. (differentiate from mucus, which under this test, gives a milky white or clouded appearance.)

Fifth: If cloudiness remains, due to fat, it will be dissipated by the addition of alcohol and ether.

Sixth: If cloudiness persists, your microscope will probably find the cause to be bacteria—in which case the cloud will remain even after *repeated* filtering.

Seventh: Cloudy urine can always be made clear by the following procedure: To urine in a test tube add a fourth part of its volume of liquor potassae, warm, filter. If the result is not absolutely clear and transparent add one or two drops of *The Magnesian Fluid, warm again, filter. The urine is then clear and albumen may be discovered by the "cold Nitric Acid test."

In testing for albumen in urine there are three imperative requisites:

- 1st. The urine must be distinctly acid in reaction;
- 2nd. It must be perfectly clear and transparent;
- 3rd. It must be free from admixture with any albumen producing substance—as pus, expectoration, blood, &c.

Perhaps no test in urinalysis is made more frequently for albumen than the "cold Nitric Acid test." Six to eight centimetres of Nitric Acid are poured into a test tube and about an equal amount of urine is allowed to flow gently down the side of the tube so the urine will lie upon the top of the acid. At the junction of the fluids, when albumen is present, a white cloud or ring is formed. It is this "cloud" or "ring" which I wish to briefly consider, because oftentimes the experimenter confronts a result which he is not sure indicates albumen.

1. Nucleo-albumin (mucin) in the urine will produce the white ring, but (a) the ring is not at the junction of the fluids, being nearly a centimetre above it; (b) this ring fails to form if such urine be two or three times diluted with water; (c) on shaking, the ring dissolves.

2. In urine where urates are abundant, the apparently characteristic ring is formed; but, (a) it is higher than the junction of the two fluids, and (b) it will disappear if warmed—*warm gently* and carefully.

3. In urine from patients taking certain drugs (preparations of balsam, copaibæ turpentine for instance) a suspicious ring appears which is dissipated by the addition of alcohol.

*Magnesian Sulphate, pure ammonium chloride, pure liquor ammoniæ, each 1 part by weight; distilled water 8 parts.

4. Highly concentrated urine will, with the Nitric Acid test, produce a ring suggestive of albumen (urea nitrate) at the junction of the fluids. To prevent this, dilute the urine with water two, three, or even four times, and the ring will cease to appear.

5. With much bile in urine different colored rings may appear—of course their color suggests their not being albumen.

With the above precautions taken, the "cold Nitric Acid test" may be considered as not only exceedingly accurate, but also very delicate—it is claimed by eminent authorities to show 0.0033 per cent. of albumen.

Finally, do not give a hasty glance and then, not seeing a ring, declare "no albumen;" but remember that, where there is an extremely small amount of albumen one must wait two full minutes and occasionally three minutes, before the ring will appear.

The text books teach that in the cold Nitric Acid test, at the junction of the urine and the acid, when albumen is present, "a white ring is formed."

But there is not always a "white" ring when albumen is present, because under some conditions the urine is so full of coloring matter that the albumen itself may become colored. For instance, if from any cause the urine under examination contains much indican, the albumen may be colored red or violet; if much blood-coloring matter, a brownish red; if undecomposed biliary coloring matters, a green hue.

THE GIANT MAGNET.—The action of the giant magnet was well illustrated at a clinic at the New York Ophthalmic Hospital. The patient gave a history of being hit in the eye some five weeks previously, by a flying particle from a nail which was being pounded. Very little distress had followed this injury, and no physician had been consulted. Failing vision at last induced the patient, who was a man of 74 years, to seek advice. The lens was found slightly hazy, there was a very small scar on the cornea, a rent in the iris and a thin black particle was observed imbedded in the lens substance. Before the magnet this particle jumped into the anterior chamber. On removing the eye from the magnet it would fall to the lower portion, and on again approaching the eye the iron would fly up to any part of the inside of the cornea to which the tip was presented.—*The Homœopath. Eye, Ear and Th. Jour.*

EDITORIAL

ARTIFICIAL HYPEREMIA AS A THERAPEUTIC MEASURE.

THE employment of measures tending to produce a hyperemic condition in the treatment of infective and inflammatory processes is not a new procedure in medicine. Hot applications and hot poultices have been used from time immemorial and several surgeons have endeavored to bring about an increased flow of blood in the treatment of ununited fractures.

About fifteen years ago Professor Augustus Bier, of Bonn, began the systematic treatment of tuberculosis of bones and infections by the production of active and passive hyperemia, and to him belongs the credit of having collated the previously existing ideas on this subject and of presenting them in a practical form. His methods were extensively discussed at the recent German Surgical Congress and the experiences of other surgeons seem, in the main, to substantiate Bier's claims. In fact, many surgeons have gone so far as to say that they regard the development of this method of treatment as the most important advance in conservative surgery that has been made for a number of years.

Bier bases his treatment on the theory that the exudate of an inflammatory process is nature's means of combatting local infection. He proposes, therefore, to increase the amount of exudation by the production of an artificial hyperemia. Bier and others have shown by the following experiments on animals that the exudate thus produced aids the tissues in combatting infection: Virulent streptococci were injected into the extremities of animals. Those which had an Esmark band applied above the point of inoculation recovered, while the control animals died.

Active hyperemia is best produced by heat. Superheated dry air is the safest and most effective way of applying the heat, as a much higher temperature may be employed without the danger of a burn than where moist heat is used. The amount of heat necessary varies with the individual and with the conditions of the case. It is desirable to heat the skin suf-

ficiently to produce an active perspiration. The length of time and the frequency of the treatment are details which cannot be discussed here

For the production of passive hyperemia Bier employs an elastic rubber bandage or vacuum cups. For therapeutic purposes the object aimed at is to produce a rapid exudation of serum into the diseased tissues, which will be rapidly absorbed and allow a repetition of the treatment. In applying the elastic bandage it is wrapped firmly around the extremity above the area to be treated sufficiently tight to prevent the venous flow of blood toward the trunk, but not tight enough to cause pain or to cut off the arterial circulation. When properly applied it should cause only a slight change in the color of the skin and should not cause a local drop of temperature in the area treated. The vacuum cups are used where it is necessary to produce passive hyperemia in an area that is not accessible to the elastic bandage or where suction is desired to draw pus out of a cavity or sinus. These vary in size from the small glass cups for furuncles and other local infections, up to the large vacuum cylinders that will contain an entire extremity. The air is exhausted by means of rubber bulbs or suction pumps.

In acute conditions there are three indications for passive hyperemia: (1) mild or sub-acute inflammation of joints and soft tissues. (2) Acute purulent inflammations of soft tissues, either of the extremities or of the head. (3) Acute or sub-acute inflammations of joints and purulent arthritis, especially gonorrheal arthritis. In such cases the bandage is applied continually for twenty or twenty-two hours. As soon as pain or discomfort arise the bandage must be removed and after some time is applied in another place. In chronic conditions, such as tuberculosis of the joints, the bandage is applied daily for about one hour. If properly applied a slight pricking sensation is the only discomfort the patient should experience.

The opinions expressed by some of the most eminent European surgeons at the recent German Surgical Congress indicate that they regard the method of treatment advocated by Bier as an important advance along conservative lines. Among these who commended the treatment may be mentioned Sick, Hamburg; Habs, Magdeburg; Korte, Berlin; Bardenheuer, Cologne, and others. Lexer, Königsberg, is the only one who does not endorse the method to its fullest extent. He ex-

pressed the view that in grave infections the evacuation of pus should not be delayed, and that the treatment by hyperemia alone was attended with considerable risk save in light forms of infection. He advocates the use of Bier's method in the treatment of wide-open accidental or operative wounds or after infectious areas have been incised previously. In such cases, he considers, it acts as a substitute for packing.

Among the conditions reported to have been favorably influenced by the hyperemia treatment are noted contaminated wounds, abscesses in various portions of the body, stitch abscesses, acute suppurations of the joints, carbuncles, osteomyelitis and periostitis, and phlegmonous bursitis. According to Habs, erysipelas, the presence of a thrombus in a vein and diabetes are contraindications to its use. He has not found it of any avail in syphilitic infection.

The published reports of American surgeons in the main corroborate these views. Bloodgood believes that it should be used cautiously in acute infections and that operative measures should not be delayed when indicated. He adds, however, that if the Bier treatment is applied in the early stage of infection resolution will take place in many cases without incision, and in severe cases, if hyperemia be combined with incision, the operative interference can be less extensive.

The theoretical explanation of the beneficial effects of the hyperemia treatment is that they are the result of the accumulation in the tissues of a serous effusion surcharged with anti-toxic bodies. Hamburger has shown that there is an increase in alkalies and carbonic in the area under treatment. Both of these have a bactericidal action. The artificial oedema also tends to dilute the local toxins and thus to diminish their destructive action. A marked local increase in the leucocytes occurs and this undoubtedly is an aid to the tissues in overcoming the bacterial invasion.

The technical details of the hyperemia method of treatment can only be perfected by time and careful clinical investigation, but there is no doubt that it is a valuable measure with a wide range of applicability, and will soon become one of the recognized procedures of conservative surgery.

INTERESTING DATA REGARDING THE PHYSICAL CONDITION OF SCHOOL CHILDREN.

THE *Boston Medical and Surgical Journal* of Dec. 13th, 1906, contains an interesting series of articles, in which are detailed the results of a recent investigation of the physical condition of the eyes, ears, nose and throat, and teeth of the pupils of the Pierce School, of Brookline, Mass. An additional object of the investigation was to determine the effect of any marked abnormality of these organs on the scholarship of the pupils.

The teeth of 700 pupils were examined. Of these the teeth were in good condition in 166, 23 per cent.; in fair condition in 179, 25 per cent.; in poor condition in 355, 50 per cent.

The condition of the eyes was investigated in 420 children with the following results: 167 were classed as normal, having perfect vision, no ocular symptoms and no errors of refraction; 155 had slight errors of refraction, good vision and needed no treatment; 98 had less than half vision, marked errors of refraction or troublesome symptoms and needed treatment. The children ranged in age from eight to sixteen, and included all grades above the primary. The largest percentage of defective eyes was found in the higher grades. This is in accord with the data given by Cohn after the examination of several thousand children in the schools of Breslau, where it was found that in the elementary schools 6 per cent. were near-sighted, in the Latin schools 26 per cent., and in the university 50 per cent. As regards the relation of ocular defects to scholarship it was found in the Brookline School that 50 per cent. of all students who attained the grade of "excellence" had normal eyes and only 14 per cent. of those who attained the grade of "excellent" came from the group of scholars whose eyes were defective and in need of treatment.

The nasal examinations showed that of 297 pupils who were examined 10 had hypertrophied turbinates, 35 had septal spurs, 89 showed evidences of adenoids, 63 had hypertrophied tonsils, and eight had deviations of the septum.

In 68 children the hearing was two-thirds of normal or less, 15 had chronic suppurative disease of the middle ear and 3 had a discharge from the ear. In comparing the hearing tests with the scholarship, Dr. Walker found that of the pupils marked "excellent" 17 per cent. showed diminished hearing;

of those marked "good," 20 per cent. had diminished hearing; of those marked "fair," 30 per cent.; of those marked "unsatisfactory," 52 per cent, and of the marked "poor," 42 per cent. showed diminished hearing.

There are two conclusions which can be formulated from a study of the data presented above: First, that a systematic examination of the teeth, eyes, nose and throats of school children will show a large percentage of abnormalities in these organs. Second, that defects of this character, even though they may not have been serious enough to attract the attention of the parents or of the teachers, will, in a large percentage of cases, explain the cause of apparent stupidity or backwardness on the part of the child. Ill advised pushing of a pupil under these circumstances can only result in injury to the child's health, and all such children should be carefully examined for some physical defect before they are condemned as being mentally incapable of attaining the same degree of scholarship as their associates.

A CORRECTION.

THROUGH an oversight we neglected to mention that the article by Dr. Cabot, of Boston, which we commented upon editorially in our January issue, was published in the New England Medical Gazette of December, 1906. Persons desiring to read the article in full are referred to the above mentioned journal.

MORTAL POISONING BY VERANOL. It was a voluntary poisoning by a person who took 15 grammes of veranol with suicidal intention. Twenty minutes after the drug was absorbed this person lost consciousness, respiration failed and the face became cyanotic. Then vomiting supervened, the extremities were cold and the pupils contracted. The phenomena produced resembled those of poisoning by morphine. The physician in charge of the case washed out the stomach and injected $\frac{1}{2}$ millig. of atropia every half hour. Notwithstanding this treatment the patient passed off twenty hours after the absorption of veranol, after profuse sweats and free emission of acid urine, which did not contain sugar, albumin or biliary pigments.

The body after death exhibited a yellow greenish coloration.—*Apoteker Zeitung.*

GLEANINGS

TREATMENT OF ACUTE INSANITY IN A GENERAL HOSPITAL. Dr. D. R. Brower in the *Journal of the American Medical Association* of July 14, 1906, considers insanity as increasingly frequent and its curability as diminishing, both due to the high tension and rapid pace of the present day.

Dr. Brower claims an experience of thirty years, during which he has at no time been without some insane patients in general hospitals. His treatment has been along the lines laid down by Weir Mitchell for the treatment of neurasthenic cases. Complete isolation from family and friends is secured, with a judiciously selected nurse.

He deprecates too free use of hypnotics and avoids those most depressing.

His experience is contrary to that of most practitioners, since he finds that only the equipment of a general hospital he can best supply those conditions most needed by the acutely insane, and advises this management of such cases rather than their commitment to special hospitals.

A CLINICAL STUDY OF EIGHTY CASES OF EXOPHTHALMIC GOITRE.—W. Gilman Thompson, M. D., states that the disease is a more complex one than was originally supposed. The modern view that it is a form of toxæmia has been definitely established, but much is yet to be learned in regard to the etiology of the acute exacerbations, as well as in the chronic forms, and also in regard to its relation with other forms of goitre, and the possibility of the concurrence of one type with another, that is, of a "simple" with an acute exophthalmic form. He states that we have inadequate clinical pictures of the acute exacerbations of Grave's disease, and important symptoms such as the eruption, the œdema, sweating, acute cardiac dilatation, and especially the fever are overlooked.

All of the eighty cases showed the cardinal symptoms, but the important facts elicited by the study were: 1. The frequency of serious acute febrile exacerbations, with dilatation of the heart. 2. The very common association of the exacerbations with tonsillitis. 3. The possibility of mistaking the highly toxæmic clinical picture for such acute conditions as malignant endocarditis or other forms of acute general septicæmia.

He then discusses these subjects, and cites clinical cases substantiating these facts, and further discusses the various symptoms that may occur in the course of the disease in relation to the scores of cases.

In closing he draws the following conclusions:

1. In a large proportion of cases, sooner or later, an acute febrile toxæmia develops, in which, in addition to the cardinal symptoms of goitre, tremor, tachycardia and exophthalmos, the following symptoms appear: fever (103° to 104 F.), acute dilatation of the heart, with murmurs, a gaseous pulse, dyspnoea, precordial or abdominal pains, gastro-intestinal disorders, œdema of the legs, sweating and sometimes erythema.

2. The acute toxæmic paroxysms may last for several weeks and the clinical picture may in many respects closely resemble that of malignant endocarditis.

3. The cause of the sudden toxic manifestations which arise so acutely in the course of this usually chronic malady often appears to be the inter-currence of some comparatively mild infection, such as simple tonsillitis, quinsy, influenza, bronchitis or an attack of gastro-intestinal disorder. In twenty of the eighty cases, or in one in four, there was a history of tonsillitis or quinsy, and in ten more of acute infection of the respiratory system. In most of these cases the exacerbation of Grave's disease was fairly attributable to the secondary infection. In not a few instances patients had had this same experience repeatedly.

4. The acute dilatation of the heart, which is apparently caused by the toxæmia, is the cause of death in many cases.—(*The American Journal of the Medical Sciences*, Dec., 1906).

G. MORRIS GOLDEN, M. D.

WHERE SHALL WE SEND NERVOUS PATIENTS?—We are fortunate in having a successor to the lamented Talcott. An unexcelled success warrants the belief that at Dr. Givens' Sanitarium, at Stamford, Conn., we may have hopes for a cure of our patients—a real cure, and more promptly than anywhere else in the world. Dr. Talcott, at Middletown, and now Dr. Givens, at Stamford, have won for themselves and for homœopathy the respect of the old school. Our illustration in Dr. Givens' advertisement fails to do justice to the extent of his grounds and buildings; they have been increased fifty per cent. since that was drawn.—*From the Homœopathic Eye, Ear and Throat Journal*, January, 1907.

EUPHTHALMIA.—Euphthalmia is a synthetical product, it is used in solutions of 2 per cent. to 10 per cent. It dilates the pupil and paralyses the muscle of accommodation; the eye regains its normal tone in five or six hours; there is no pain or redness, it is not an irritant. It has not produced constitutional symptoms in Dr. J. M. Ball's hands, although he has used it freely in children and delicate females. In the examination of the eye with the ophthalmoscope, and in the correction of errors of refraction by retinoscopy, he is using euphthalmia almost exclusively; a patient's refraction may be measured late in the afternoon, and he will be able to write the next morning, or, even late that night. In children he uses a 5 per cent. solution, and in adults one of double this strength. After the use of two drops three times at intervals of five minutes, one can examine the fundus with satisfaction or make use of retinoscopy. In cases of iritis and other inflammations needing mydriasis probably nothing will supersede atropin, when prolonged mydriasis is required.—*The Homœopath. Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

IODOFORM IN TREATMENT OF IMMATURE CATARACTS.—The patient, Mrs. P., about fifty years of age, consulted me in May, 1894, for a scotoma of the left eye, "like a bee." Ophthalmoscopic examination showed a superficial cortical opacity toward the nasal side of the lens, but not reaching to

the periphery. The opacity was uniform, not striated in outline. A much smaller opacity was discovered in the right lens. The scotoma had annoyed her for ten days. She was not strong, but complained of no other symptoms except a chronic form of indigestion characterized by pain after eating and much flatulence. Her central vision, after correction of refraction was normal. I gave her iodoform 3x. Six days later she called again and reported that the scotoma was smaller and less dense. The bee had become a fly, and was translucent, as she expressed it. The medicine was continued with progressive improvement until August, when the right lens was perfectly clear, and the left showed only two small, short, narrow opaque lines at the location of the former opacity. Incidentally the stomach symptoms were also much relieved, so that she said she was having less trouble in that direction than for years. I saw her at frequent intervals until her death, in 1903, I think, and she never again complained of the scotoma. I have no record of a later ophthalmoscopic examination, but have every reason to believe that the lens remained transparent.—E. H. Linnell, M. D., Norwich, Conn., *The Homœopath. Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

ACUTE RHEUMATIC IRITIS.—The patient was an old school oculist, suffering with the fourth attack of rheumatism, complicated with iritis. Every attack of rheumatism had been accompanied with the inflammation of the iris; he had treated three attacks with moderate success by making a pilgrimage to Mt. Clemens. This last attack was in March, and as usual at the first signs, he went to Mt. Clemens, but failed to receive the usual relief. He reached Washington much discouraged and suffering severe pain. He soon began to have marked choroidal symptoms with scotomata, and became considerably frightened. He was a friend of one of our Washington members, and had become somewhat interested in homœopathy, so in that way I was called in to help if I could. I found him suffering with supraorbital and ciliary neuralgia. That night he received two powders of spigelia 30. The next day he asked me "What did it?" The neuralgia went for good. Later he received the red iodide of mercury in the 3d. every two hours. His improvement was rapid. The local treatment was dilatation of the pupil. He recovered completely in three weeks. The previous attacks had required six weeks to two months. No other remedy was given while I was treating the iritis. The spigelia was not given at the same time as the mercury.—Wm. Rufus King, Washington, D. C. *The Homœopath. Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

THE TREATMENT OF BURNS.—In burns of the first degree, Prager advises a liberal covering of powdered boric acid, which is to be held in place by a protective dressing, which as well tends to exclude the air.

In burns of the second degree, the use of ordinary molasses is recommended, which is to be applied on pieces of blotting paper, one inch by two inches, which have been previously soaked in molasses. The strips of blotting paper are to overlap one another, and are then to be carefully covered with powdered boric acid; the sugar in the molasses, according to Prager,

acts as an excellent antiseptic. Strict antiseptis is to be employed where there is vesiculation with tendency to bullæ formation, in such cases the bullæ are to be punctured at their bases, but the cuticle must not be destroyed, as it acts as a protector. Thorough cleansing should be practiced with bichloride solution, 1-10,000 to 1-20,000, which should be followed with a covering of sterilized rubber tissue, gauze and bandage. Unless there is marked odor, or great discharge, the dressing should only be changed once in two or three days.

Continuous hot baths, at a temperature of 100F. for two or three days, are advised in burns covering large areas, the relief is instant; there is protection from the air, and decomposition is prevented. In the treatment of third degree burns, which are limited in area, there should first be thorough disinfection, with 1-2,000 bichloride solution, or 1-40 carbolic acid solution, followed by the removal of all necrosed tissue, which should be done under an anesthetic. The author prefers a powder dressing to an ointment, as it has a greater power to prevent suppuration; he recommends, iodoform one drachm, and boric acid seven drachms, to be used liberally on the burned areas, care must be taken, however, in extensive areas, as iodoform poisoning might develop. The author as well recommends bismuth and zinc oxid for dusting powders.

Constitutional treatment must as well be borne in mind, the administration of stimulants is often necessary, strychnine, 1-30 gr. every four hours, or hypodermic injections of alcohol and ether, are of benefit.—Prager, *New York Medical Journal*.

RALPH BERNSTEIN, M. D.

OPEN TREATMENT OF BURNS.—Sneve thoroughly believes in the open method of treatment for burns, as he contends that toxæmia is greatly favored by the use of dressings, which prevent drainage and retain discharges. Sneve further contends that the retention of these discharges has been the frequent cause of death, due to toxæmias. The author decries the use of strong antiseptic solutions, advising normal salt solution instead. He as well warns against the use of whiskey, morphine, and strychnine, contending that these substances act as poisons to the already shocked nervous system; adrenalin is used instead.

Local warmth is to be applied to the hands and feet and to the nape of the neck as well. Hot baths are indicated when the general bodily temperature is sub-normal. The room temperature should be kept high. Hypodermoclysis or saline infusions are often necessary.

It is of utmost importance that the normal skin be kept in good condition, cool sponging and friction being indicated.

All serous exudates should be carefully wiped away, until crusts are formed; in other words they should be exposed without powder and kept clean until granulation takes place; if this fails skin grafting should be practiced.—Sneve, *Jour. A. M. A.*

RALPH BERNSTEIN, M. D.

PSORIASIS. CONCLUSIONS REACHED BY BULKLEY IN A STUDY OF 500 CASES.—In a recent article on "The Cure of Psoriasis, with a Study of 500 Cases of the Disease, observed in Private Practice," L. Duncan Bulkley comes to the following conclusions:

1. Psoriasis is not a purely local disease of the skin, but has constitutional relations which are most important.

2. Psoriasis is not a parasitic disease of the skin, in the usual acceptation of the term; it is not contagious, nor has it a definite micro-organism. But probably the immediate lesions of the skin are caused by the growth of some of the ordinary micro-organisms usually found on the skin, which take on a pathologic action when the soil is suitable.

3. Psoriasis can not be cured permanently by local treatment alone, although when properly directed this is commonly capable of removing existing lesions, which are likely to return.

4. In some instances in which local treatment seems to be followed by success, the eruption may be seborrheic dermatitis, which in some of its phases closely resembles psoriasis.

5. Hereditary influence is a relatively unimportant factor, not operative in more than one-quarter of all cases; even in many of these instances but one child may be affected among many healthy children.

6. Psoriasis is not a late manifestation of syphilis.

7. There is no one tangible internal cause of psoriasis, though faulty metabolic changes, are probably at the bottom of every case, and these may be induced in many ways.

8. The repeated and thorough volumetric analysis of the urine is most valuable as an aid in determining the line of proper treatment in different cases, and at different times.

9. There is no one internal remedy universally of value in psoriasis, although arsenic is the single agent of most service in the greater number of instances. Arsenic is safe, if properly used, and may be taken for a long time if properly used with only beneficial results, but it commonly requires to be employed in conjunction with other internal remedies; or alternated with them. In acutely developing psoriasis it often acts badly, increasing the eruption.

10. In a large share of cases alkalies, if properly used, are of the greatest value in psoriasis.

11. The avoidance of meat, or an absolutely vegetarian diet, is a most valuable aid in treatment, and sometimes will be attended with freedom from the eruption.

12. Psoriasis is an exceedingly chronic and rebellious disease and effective internal measures must be continued for a long time, generally for at least two years, to ensure a cure.

13. Local treatment is of the greatest value in the removal of the eruption present, but its temporary success should not interfere with the persistence of in proper internal measures for a length of time, even when no eruption exists. The eruption can also disappear under the strictest proper internal treatment, without the aid of any local measures.

14. The X-ray is a most valuable adjunct, to local therapeutics, and is sometimes capable of removing chronic lesions even by means of a single application.—*Jour. Am. Med. Ass.* Vol. XLVII, No. 20.

RALPH BERNSTEIN, M. D.

THE VALUE OF BLOOD EXAMINATIONS IN SURGICAL DIAGNOSIS.—After studying this subject with some care, Jessup summarizes his observations as follows: 1. Knowledge of the absolute and relative leucocytosis in inflammatory conditions is of great value to the surgeon, but only when taken in connection with the history and clinical features. The man who operates on the blood count alone runs the risk of opening the abdomen for intestinal indigestion, when the cause of the leucocytosis is a pneumonia. 2. In the absence of an absolute leucocytosis a relative increase of the polynuclears coupled with other signs is indicative of a purulent exudate. 3. The absolute leucocytosis is of value in prognosis, the higher counts being seen in cases where there is good body resistance. Low counts with a high percentage of polynuclears and evidence of marked sepsis give a poor prognosis. 4. A differential count should accompany every total count for its proper interpretation; but it is not safe or wise at present to fix any definite percentage of polynuclears as the point at which pus is certain to be found. 5. In certain bacterial infections, e. g. with typhoid and colon bacilli, the polynuclear percentage may be below normal, although pus is present, and this must be borne in mind in interpreting the leucocyte counts.—*Amer. Jr. Obs.* Vol. 54, 33.

THEODORE J. GRAMM, M. D.

THE CAUSES OF STERILITY.—Ward concludes an ably written article with this summary: 1. That, as conception is dependent upon the four essential factors of healthy spermatozoa, normal ova, the union of the same, and the proper implantation of the fertilized egg, sterility is most frequently dependent upon acquired pathological lesions, and congenital defects, which defects and lesions produce sterility by interfering with one or more of the above-mentioned essentials. 2. That a large number of cases of acquired sterility are due to pathological lesions producing such destructive changes in the tubes and ovaries as to mechanically prevent the union of the spermatozoa with the ova. 3. That gonorrhœa is the most frequent cause of such destructive lesions. 4. That acquired sterility, in a large number of instances is due to chronic endometritis, which produces such pathological changes in the endometrium as to prevent the proper implantation of the impregnated ovum. 5. That the cases of sterility associated with flexions, displacements, subinvolution, fibroids and other neoplasms, are due not to these conditions *per se*, but to the associated chronic endometritis which prevents proper implantation. 6. That a fruitful cause of an unhealthy endometrium and of tubal disease, which either singly or together tend to prevent union of the male and female elements and proper implantation, is the chronic inflammation and congestion of the uterus and adnexa incident to the subinvolution or sepsis which so frequently follows abortion, especially if treated by the expectant plan. 7. That we must be impressed by the great importance of gonorrhœa in its relation to sterility, when we appreciate that it not only renders the woman sterile, but is responsible nearly always for sterility in the male, gonorrhœa thus being an etiological factor in about 70% of the cases. 8. That finally, as in nearly all instances the sterility in the woman is due to gonorrhœa, the infection has been innocently acquired by the wife from her hus-

band, the fault lies with the man in more than two-thirds of all cases.—*Amer. Jr. Obs.* Vol. 54, 158.

THEODORE J. GRAMM, M. D.

THE FETICH OF THE OVARY.—In an article bearing this strange title, Van De Warker contends against certain inaccuracies respecting the influence of the ovaries. He maintains that an unwarranted importance has been ascribed to them as causing pelvic pain so frequently complained of, whereas this is more often caused by localized peritonitis rather than by ovaritis. The great rarity of inflammation of the ovarian stroma and the frequency of a limited peritonitis at the open end of the Fallopian tubes ought to cause a discrimination in the choice of terms. Uncomplicated parenchymatous ovaritis is not a painful disease. The termination of ovaritis in abscess is very rare. Small multiple cysts of the ovary do not appear to give rise to any symptoms, contrary to our former belief. The frequency with which the ovary becomes disorganized by extensive new growths without giving rise to pain or other symptoms is well known. The author is also opposed to the view that misplacement of the ovaries is of much importance in causing menstrual and intermenstrual pain. The author is definitely opposed to unnecessary mutilating operations, as are most physicians to-day, but when in pursuing this thought he is led to the affirmation that "a woman's ovaries belong to the commonwealth; she is simply their custodian," we encounter a field for ethical disputation from which we shrink. Such exalted, self-abnegating patriotism may characterize the distant centuries, for aught we know, but just now the proposition is not likely to be generally conceded without at least a mental reservation.—*Amer. Jr. Obs.* Vol. 54, 366.

THEODORE J. GRAMM, M. D.

ARTIFICIAL RENAL COLIC AS A MEANS OF DIAGNOSIS.—Hutchins reports in detail a series of experiments made in the gynecological department of the Johns Hopkins Hospital for identifying obscure pain in the back and flanks, by producing an artificial renal colic by forced injection of the renal pelvis. A measured quantity of boric acid or methylene blue solution is injected through a ureteral catheter, and the effect as experienced by the patient is noted. On slowly injecting the pelvis of the kidney the patient complains first of a dull aching pain in the back on the side on which the kidney has been injected and at the level of the pelvis of the kidney. This pain is localized and does not involve a large area, and its location and character are not indefinite in the patient's mind. One hundred cases have been subjected to this test and were arranged in the following groups: I, including 23 cases. Normal kidney pain produced. Not that pain of which the patient complained. Disease of the kidney ruled out. II, including 50 cases. Kidney pain reproduced. Same pain as that of which patient complained. Diagnosis of renal or ureteral disease confirmed. III, including 17 cases. Dilated pelvis of kidney. Stricture of ureter. IV, including 10 cases. Doubtful cases and failures. The conclusions reached are: The ability to reproduce, mechanically or otherwise, the pain of which a patient complains is always a most valuable aid in diagnosis. A definite and typical "kidney pain" (renal colic) can be produced in every instance by forcibly distending the pelvis of the kidney with a bland fluid.

In a large majority of cases (98% in this series) patients are able to accurately differentiate renal pain caused by the method described above, from pains from other causes. By this method a diagnosis can frequently be made in a class of cases, as yet undifferentiated by the medical profession, whose symptoms are vague and indefinite. Accurate measurements of the amount of dilation of the pelvis of the kidney may be obtained with the instrument used, and by this means valuable data are obtained.—*Amer. Jr. Obs.* Vol. 54, 331.

THEODORE J. GRAMM, M. D.

URETHRAL BACTERIA AS A FACTOR IN THE ETIOLOGY OF CYSTITIS IN WOMEN.—Taussig summarizes an admirable article on this subject in the following conclusions: The normal urethra, free from disease, is sterile in only a small proportion of cases. In his series, out of 45 cases it was sterile 8 times. In about half of the total number of urethræ examined, pathogenic germs were present. The percentage was as high as 62.5 per cent. Of the pathogenic bacteria found, staphylococcus pyogenes albus is the most common. The occurrence of the colon bacillus seems very variable. It is found frequently where patients are confined to bed. In his series it was isolated only three times. That these urethral bacteria are actually carried into the bladder by catheterization is shown in eight examinations in which the urethral secretion and the urine obtained by catheterization were compared. In six cases the bacterial findings were identical, and in the other two cases the difference was a slight one. Irrigation of the urethra with boric acid removes a large proportion of the urethral bacteria, but where the number is great, does not suffice to remove all. The double catheters devised for the purpose of avoiding contamination with the urethral bacteria do not as yet deserve to be generally used. Tests made with the instrument of Rosenstein show that its protection is only a partial one. It has other objections, so that ordinarily the usual glass catheter is preferable. Where repeated catheterizations become necessary therefore, he advises certain precautions to prevent an infection of the bladder by urethral bacteria. Give urotropin or an allied product internally. Catheterize in the following way: Introduce the ordinary glass catheter part way into the urethra and irrigate the urethra with half a pint of boric acid solution, taking care that the fluid does not enter the bladder, empty the urine and irrigate the bladder with one or two pints more of boric acid solution. These precautions may seem troublesome, but laboratory experiments and clinical experiences thus far show that herein lies the only reliable prophylaxis against the production of a catheter cystitis.—*Amer. Jr. Obs.* Vol. 54, 465.

THEODORE J. GRAMM, M. D.

ECLAMPSIA.—In writing about a fatal case of eclampsia, Parnall says: Eclampsia is due to a toxemia, the origin of which is not known; but which in the light of recent investigations, is quite possibly of placental genesis. Characteristic hepatic changes are not present in every case of the disease, and when occurring are probably secondary. In rapidly fatal cases the kidneys, as eliminative organs, will probably be first affected by the poison and will show the chief changes in the epithelium of the distal portion of the proximal convoluted tubules, and alterations in thyroid gland function

may be directly or indirectly responsible for the development of the toxic state resulting in eclampsia.—*Amer. Jr. Obs.* Vol. 54, 533.

THEODORE J. GRAMM, M. D.

HEART DISEASE AND PREGNANCY. Tuszkaï (Buda Pesth) who has studied this subject most carefully, has formulated his conclusions as follows:

1. During pregnancy the pulse differs from the normal in that toward the middle of pregnancy and often at the beginning it loses its normal stability.

2. The disappearance of stability accompanied by an increase of the blood pressure and the formation of a larger area of heart dulness, is in all probability a sign of the normal cardiac hypertrophy of pregnancy.

3. The kidney of pregnancy most likely presents diagnostic signs of exaggerations of the above symptoms.

4. An increased area of heart dulness associated with diminished blood pressure and a return of the regularity of the pulse is a sign of muscular insufficiency of the heart, that is dilatation.

5. Bradycardia in the puerperium, anasarca, and varicosis are in most cases consequences of the conditions just named.

6. According to many published cases and according to the author's experience, the prognosis of pregnancy in those affected with heart disease is to be considered in three groups:

In the first group are those where the heart disease existed before pregnancy and is pronounced. In these cases the prognosis is generally bad. The pulse may be irregular for only a short time in the earlier months of pregnancy, but later returns with greater severity and is associated with the other symptoms of dilatation and loss of compensation. The blood pressure diminishes.

In the second group are contained those cases in which the heart disease occurs as a complication of pregnancy, and was latent before that. Here belong the cases of angiosclerosis and those so inclined by heredity; also those who shortly before pregnancy acquired a severe infectious disease like syphilis, tuberculosis, typhoid, influenza, rheumatism, and gonorrhœa. The diagnosis will not be difficult when we seek for these causes and observe that the heart symptoms only gradually develop in the later months of pregnancy, and attain to such a grade as will be determined by the general condition together with the casual cause. The cases in this group may have a good prognosis, as we may determine by the pulse and blood pressure remaining regular until the end of pregnancy. The prognosis, of course, may be bad even in the beginning of pregnancy when the pulse is irregular and the blood pressure low.

In the third group belong those cases which have a special heart of pregnancy. If we can exclude the cases in the former group, the diagnosis is easy, for these are usually only mild cases which are only functional in character, and their prognosis is favorable for they recover after delivery. The irregularity of the pulse becomes less pronounced and disappears by the seventh or eighth month.—*Samml. klin. Vorträge.* No. 407.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

TARAXICUM. Dr. Paul Chiron, *L'Art Medical*, Sept., 1906, gives for the benefit of Dr. Mathieu and his proselytes, the leading symptoms of taraxicum in the various maladies in which it has proved curative:

Debility, loss of appetite, profuse sweats.

Mapped tongue, covered with a white fur, with a feeling of roughness. This coating cleans off in patches, leaving dark red, tender, very sensitive spots.

Accumulation of saliva in the mouth, with constrictive sensation in the larynx.

Acute pressure in the anterior wall of pharynx and larynx, exciting coughing, but ceasing on swallowing.

Sour water accumulates in the mouth.

The mucus detached from the throat has a sour taste and sets the teeth on edge.

Eructations which last several days and return after drinking.

Nausea, as if the stomach had been overloaded with fat food. Sensation as if about to vomit, with pressive stupefying pain in the forehead. Better in the open air.

Gastralgia, principally when due to lack of hepatic activity.

Continual motions in the abdomen, as if bubbles were forming and bursting.

Abdomen puffed, stitching in lower abdomen, then escape of gases.

Stitching pains, continual, in the left side of the abdomen.

Isolated, violent acute stitches, now in the left epigastric region, now in the right or left side of the abdomen, and also in the hypogastrium.

Burning, shooting in the left hypogastric region, and extending towards the genital parts.

Borborygmus in the umbilical region.

Dr. De Cooman, *Journal Belge d'Homœopathie*, Sept. and Oct., 1906, gives not only some of the pathogenetic effects of taraxacum on the nervous system, but some of the symptoms of natrum muriaticum, applicable to such diseases as locomotor ataxia and phthisis pulmonalis and of natrum phosphoricum covering insomnia.

Taraxacum, recommended in gastralgia, cephalalgia and other painful affections, &c. Painful sensitiveness in all the limbs, especially to touch

and to improper position. Feeling of weakness and malaise in the whole body. Chilliness, with pressing headache. Irresolution and aversion to work. Loquacious and inclined to laugh and be merry.

Head: Vertigo, with dullness and reeling in the open air. Headache, as from contraction and expansion of the brain. Weight and pressure in the head. Stitches in the forehead and temples. Violent headache, ceasing only on standing and when walking. Tension of the scalp.

Eyes and Ears: Pain in the eye as if a grain of sand was lodged in the inner angle. Burning sensation and burning pricking in the eyes. Shooting in the ear. Hardness of hearing in the evening.

Face and Teeth: Sensation of heat in the face. Shooting and pressure in the cheeks. Odontalgia, with swelling up to the eyebrow. Shooting in the teeth.

Throat: Sore throat, with pressing pain, as from an interior swelling.

Stomach: Bitter eructations. Persisting eructation, returning after drinking. Nausea, as if due to fat food, with anxiety, and pressing headache, better in the open air.

Abdomen: Stitching pains in the abdomen. Pressive stabbing in the abdomen, and sides of the abdomen, principally in the left side.

Chest and Trunk: Boring pains in the chest. Stitches in the chest and sides of the chest. Pressive pain in the renal region. Pressing stitches of the back and kidneys, while lying down, with shortness of the breath. Tearing and pressing stitches in the muscles of the neck and nape.

Upper and Lower Extremities: Pulsative beating and tearing in the shoulders and arms. Drawing and tearing in the forearm and wrist. Shooting in the thighs, knees, calf of the legs, plant of the feet and toes. Burning sensation in the knees, the legs and the toes.

All these symptoms are purely subjective.

Dr. De Cooman further relates that Dr. Sieffert, of Paris, in his "Formulaire de Therapeutique positive homœopathique," recommends *natrum muriaticum* 3c. trituration, as a useful remedy in locomotor ataxia, particularly when there is constipation and pupillary contraction. Then he gives two groups of symptoms, that may, all of them, become related to locomotor ataxia, and which he has taken from the pathogenesis of *natrum muriaticum*.—*Manuel de Matière Médicale de Jahr*.

Paralysis of the Limbs: Amaurotic amblyopia. Priapism and impotence. Tearing in the muscles and the limbs. Various mental troubles and disturbances of the sleep. Headache and migraines of various characters, Vertigo. Hardness of hearing. Digestive disorders. Lassitude and paralytic heaviness of the arms and hands.

Trunk and Limbs: Bruised pains, and paralytic lameness in the renal region. Also cutting, stitches, and strong pulsations in the small of the back. Tearing pains through kidneys and hips. Nocturnal pains in the back. Weight, rigidity and tension in the nape. Pain of laxation in the hips. Drawing pains in the thighs, the knees and the legs. Painful contraction of the hamstrings. Great weight and loss of power in the legs, the feet, etc.

He wants to prove to Dr. Mathieu, also that *natrum muriaticum*, is a remedy with a great clinical history in affections of the chest, by giving him a small tableau of symptoms taken from the pathogenesis of the drug and which are principally related to phthisis:

Chest and Cough: Stitches in the chest, especially in the right side.

Violent stitches with oppressed breathing, worse during a long inspiration. Oppressed breathing during any manual effort, relieved in the open air. Cough provoked by tickling in the throat, or the epigastrium, day and night, but principally from rapid walking or while breathing deeply. Morning cough. Evening cough, in bed, spasmodic, suffocating. Cough with bloody sputa, micturitions and vomiting. On coughing bursting pain in the forehead.

Hoarseness and sensation of dryness in the larynx. Cough with involuntary urination at each paroxysm. Cough excited by each effort to empty swallowing. Cough exasperated from 10 to 12 A. M., with chills. Tickling cough while walking or breathing deeply. The excitement to cough seems to arise from the pit of the stomach. Mucous rales. Right side localization.

Heart: Palpitations. Irregular, intermittent beating of the heart and pulse. Undulatory movements of the heart aggravated by the least exercise, especially after noon dinner, and relieved by the pressure of the hand.

Decubitus and Sleep: Sleepless at night or disturbed sleep; interrupted sleep generally from midnight to 2 A. M., while during the day the patient is drowsy. Decubitus is only tolerated while on the back. Inability to rest on either side; if the patient lies on one side, he experiences at once extreme agitation and violent palpitations of the heart.

Fever: Pulse full, usually irregular. Hectic fever; during the febrile paroxysms, chilliness predominates; the patient complains of internal coldness. Hands and feet ic cold. Flushes of heat with violent headache. Great thirst during the fever. Profuse, debilitating sweats, particularly in the morning.

Mind and Disposition: Melancholic and irritable mood; very sensitive, taciturn. Aversion to open air and to move. Only desires rest and solitude.

Face pale, skin yellow, dry, wan. General debility. Heaviness of arms and legs. Noises in the ears. Black spots and muscæ before the eyes. Difficulty of thinking. Speaking fatigues. Physical and mental depression. General bruised feeling.

Digestive troubles of various kinds.

Concomitant Symptoms: Headache. Pimples on the face. Herpes. Chilliness. Emaciation. Skin and nails cracked. Warts in the hands. Sweaty hands, &c.

Dr. De Cooman takes also, from the pathogenesis of natrum phosphoricum, a group of symptoms which may explain the success of Dr. Mathieu with this drug in insomnia.

One of the provers experienced an unusual and extreme excitement; he was unable to fall asleep until 1 A. M., and awakened at 5 A. M., fatigued and unrefreshed. Another could not sleep until 4 A. M., and had only a restless sleep of one hour. The prover No. 6 had a disturbed sleep during the whole proving; No. 3 (Dr. Miss J.) had a restless sleep during and after the menses, tossing from one side to the other. No. 6, insomnia after midnight until 5 in the morning. No. 2 had a slight sleep and was entirely awaked by the least noise. No. 5, drowsy from 3 P. M. until bed time, then sleepless from crowding of thoughts.

DR. E. FORNIAS.

FACTORS IN DISEASE. Let us admit from the beginning that in the cure of the sick many influences must be considered:

- a. The natural history of morbid processes.
- b. The recuperative energies of the organism.
- c. The favorable agencies of hygiene.
- d. The power of personal magnetism in the practitioner.
- e. Suggestion and auto-suggestion.
- f. Faith.
- g. Courage.
- h. Drugs.

The problem which faces every fair-minded man is to apportion to each of these influences its due weight. Prof. F. B. Percy, *New England Medical Gazette*.

[With Prof. Percy's permission we will add i. Remedies in potency.]

OWING to the tenacious sequels of gonorrhœal infection, and the metastasis resulting therefrom, it is the opinion of many physicians, that when one once has the disease, it is never entirely eradicated, and that it is attended with greater fatality than syphilis.—*La Tribune Medicale*.

MODALITIES OF HOMOEOPATHIC REMEDIES. By W. A. Dewey, M. D., Ann Arbor, Mich. What are usually termed the modalities of a drug, when referring to our pathogeneses, are the influences which change or modify its action.

In all nature we have these modifying influences; in plant life we find them in the temperature, humidity and environments of soil and climate; in animal life we note similar conditions.

In sickness and disease these modifying influences are almost legion. We find our patients better or worse on certain days or times in the day; position, temperature, heat, cold, humidity, day and night, all modify for better or for worse many illnesses, or perhaps better said, many patients.

The modifying features of a given illness may be due to that illness itself. We find deep breathing aggravates invariably certain stages of pleurisy. We find that heat will invariably relieve certain pains. These are what we might term pathognomonic modalities and belong rather to the disease than to the patient, and consequently are of less importance, I believe, in prescribing than those modalities that are characteristic of the patient.

In our pathogeneses we recognize the modalities as serving to indicate the character of the drug, to individualize it, to precisionize it. Without these modalities our knowledge of a drug's action would in many instances be devoid of clearness and hence crude. Withdraw from the pathogenesis of *rhus toxicodendron* all its modalities and what would we have left upon which to prescribe this medicine? And not only with *rhus*, it is the same with *nux*, sulphur, in fact every remedy.

Every drug has an environment for the full and free manifestation of its individualities, just as a plant thrives best in soil and climate suited to it. To be sure, it will grow in soils and climates unsuited to it, but it will be dwarfed and stunted. Drugs likewise may act where the environment is lacking, but the best effect will be where it is present.

A good example of a drug that depends largely upon its modalities for its accurate employment is lachesis; most of its good characteristics are modality characteristics; thus the aggravation after sleeping, from touch, from tight clothing about the neck, are examples of this. Indeed, it would be difficult to prescribe it as its pathogenesis now stands without paying attention to its modalities.

It is sometimes difficult to determine the value of a modality, and doubtless our pathogeneses teem with many that are valueless, often exciting ridicule.

It is our belief that too much value for the purposes of accurate prescribing, cannot be placed upon a well and repeatedly observed modality. It often serves to decide between drugs of similar action, or to apply a drug in difficult patients with similar diagnosed diseases. In other words it frequently diagnoses our prescription.

In re-proving our materia medica we should be particular to elicit all possible modalities, for these are in reality an essential part of every symptom and we do not believe that a real good homœopathic prescription can be made without them.—*The New England Medical Gazette*.

FOR CHRONIC CONSTIPATION. In the treatment of chronic constipation Dr. Schmidt, of Dresden, wishes to introduce a new theory. He says that chronic constipation is due to a too thorough absorption of the food, which does not allow the growth of microbes in the intestines, which is very essential for the peristaltic movement. Schmidt recommends agar-agar for the treatment of constipation, and says that a daily dose of 20 to 25 grains of agar-agar will remove the complaint. He also mentions Dr. Kohnstamm's theory relative to chronic constipation and thinks that the albumin of the meat causes a toxin which prevents the peristaltic movement, and therefore meat ought to be omitted from the diet, and only eggs, butter, and milk given.—*Therapeutic Gazette*.

HAVE YOU TRIED *Sepia* for the soreness in the abdomen of pregnant women?

"They feel the motion of the child too sensitively; especially applicable in nervous hysterical women."

Alumina for constipation?

Has to strain even to pass a soft stool. The rectum seems paralyzed; the mucous membranes are dry, the stools clayey."

Apis for threatened abortion?

"During early months stinging pain in ovarian region until labor pains ensue; much flowing and then abortion."

Cimicifuga for neuralgia?

"In brachial plexus, coming on in fall and winter, better from heat and massage. Parts feel sore and bruised."

Kalmia for a slow pulse?

"In the third dilution kalmia will bring up a slow pulse or reduce an abnormally rapid pulse. Think of it when your indications do not point directly to another remedy."

Argentum nitricum in sour, flatulent stomach?

"Great craving for sweets; ineffectual attempts to vomit, great distension."

Psorium in headache?

"Left-sided; accompanied by hunger; eating relieves."

—*The Medical Forum.*

HEART STIMULANTS. *The best heart stimulant is the well chosen homœopathic remedy that is the similimum to the entire case. The functional integrity of the heart is best sustained by adhering closely to this remedy.*

In exceptional cases where we have a very weak, or fatty heart, in an aged person, we may use an additional stimulant to this organ when I have had good results from nitro-glycerine given in 1-100 gr. doses during a critical period.

With good nursing and the correct prescribing of the homœopathic remedy, 95% of uncomplicated cases of pneumonia will recover.—Edward E. Snader, M. D., in *The Medical Counselor*.

[The italics are ours, as we have seldom seen this truth better expressed.]

ETIOLOGY OF HEMATURIA. Vogel classes amongst the causes of this condition tumors, abscesses, hypertrophy of the prostate, and impairment of the circulation due to pregnancy. A case came under his observation of a young, healthy primipara who suddenly evidenced a severe hemorrhage from the bladder at the seventh month; the urine was normal as regards quantity and specific gravity and cleared up on standing. Rest in bed had in order to favor the circulation in the limbs and pelvis, and the hemorrhage no effect on the condition; the patient was allowed to exercise moderately rhage disappeared.—*Berliner klin. Wochenschrift*, 16, 1906.

THE FIRST INSANE ASYLUM.—In a paper read before the International Congress at Milan, (Sep., 1906) on the care of the criminal-insane, Dr. Rodriguez-Morini, Medical Director of the San Basilio Manicomium, in Barcelona, stated that the first mad-house known, was founded in Valencia, Spain, in 1409, through the initiative of an illustrious monk, Fray Juan Gilabert Jofré.—*Gaceta Medica Catalana*, November 30th, 1906.

BIOLOGY. Gompel and Henri obtained colloidal silver from the fluids of the organism by the spectrographic method, which allows to detect doses of 1 100,000; three or four drops of blood, or of fluid, being sufficient for the experiment. Colloidal silver in small atoms injected into a vein, remained in the blood twenty hours after its introduction. It is absorbed by the intestinal wall and found again in the liver, spleen, kidneys and heart of a rabbit, which received it by the mouth.—*Le Progres Medical*.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

PEDIATRIC PRECEPTS.—(*Concluded.*)

120. If even in this very dilute form the milk still disagrees, try condensed milk, of a brand containing all the original cream, and to start with, dilute one teaspoonful of condensed milk in six tablespoonfuls of water, not barley-water, but ordinary water which has been boiled and then allowed to cool. In this mixture the total sugar is somewhat in excess, and the fat is distinctly too low; but by the addition of a teaspoonful of centrifugal cream, the total fat is brought to 3.5 per cent., which is the same as that in human milk.

121. Condensed milk is an extremely useful temporary expedient, though some consider it a heresy to recommend it, but if used with suitable precautions, particularly if the deficiency of fat is rectified, it may be quite successfully given for the first two or three, or even more, months of the child's life. I think it is so much more easily digested than ordinary cow's milk because one gives it so dilute.

122. It is quite true that the continued use of condensed milk is almost certain to result in the production of rickets if kept up until the child is six months old. But fortunately, by six months the child's digestion has generally become capable of dealing with ordinary cow's milk.

123. If condensed milk fails, you may then fall back upon peptonized milk, although it is not much more digestible than condensed milk unless it is very carefully prepared. I recommend for making it Fairchild's peptogenic powders. But if you give peptonized milk alone it may still be too strong, and in that case you must dilute it with one-third or even one-half of lime-water. This will insure easy digestion.

124. One may regard diluted cow's milk, condensed milk, and peptonized milk as the positive, comparative, and superlative of digestibility. If digestion is very feeble, you give peptonized milk; if it is somewhat stronger, you give condensed milk; and if it is still stronger, you give cow's milk. (Hutchison.)

125. If in spite of all you do the digestion does not improve, you are justified in thinking you have to deal with a child who is incapable of digesting cow's casein, and you have in such cases to take away the casein altogether, and to do that the simplest way is to prepare whey from the milk.

126. To prepare the whey for such cases, curdle the milk with rennet, and allow to set into a solid mass; then stir it up and strain it through muslin, but, as whey is insufficient alone, you have to add one part of

cream to 4 or 8 of whey. The whey should be scalded before use, to destroy the rennet which it contains.

127. Instead of using cream to supplement the deficiencies of whey you may sometimes use one of the patent foods. I have used Mellin's food and whey successfully; but usually whey and cream will answer best.

128. With such means as this you will in most cases be able to tide the child over his trouble, even if he be of very feeble digestive capacity, until such a time as he has cut some teeth. When the child reaches the first dentition often a complete change comes over the digestion, and instantly his nutrition improves.

129. In the artificial feeding of babies, we should always bear in mind, that it is a bad practice to lightly change from one kind of food to another. We cannot judge from one week's experience what any particular food is going to do for a child, and we better keep the child on a diet for a reasonable time, so as to give it a fair trial. Only if we are finding that he is not gaining weight, are we justified in concluding that the food he is having is not suitable for him.

130. As to patent foods, Hutchison has divided them into three groups: First, one which is intended to be a complete substitute for human milk; secondly, a group which is intended to be made up with cow's milk, and in which the artificial part of the food is predigested; the third class includes those which contain unaltered starch. Rule out the third group at once for all children under six months old.

131. As regards the first group, says again Hutchison, they really present very little advantage over condensed milk. He admits, that some children may be reared successfully on certain foods, but hardly ever if condensed milk and other methods of feeding have been properly tried and have failed. They all incur the risk of producing scurvy.

132. The second group of foods is sometimes useful for children who are getting towards the period of first dentition, and who are not thriving very well because it is difficult to get them to take sufficient cow's milk.

133. In these cases it is advisable to supplement the milk with some other food, and a dextrinized food, such as Mellin's food, is the best; for in this class of food the change in the starch has already taken place. But remember they are all deficient in fat, and their continued use is apt to result in rickets, consequently they should be given only for a limited time.

134. You must not be surprised nor blame yourselves, if you find every now and then that there are cases in which you cannot find anything on which the child will thrive; with whom nothing succeeds. These are the cases which end in marasmus, and in which they die without one being able to find out what was the cause of the fatal result.

NATALITY AND MORTALITY OF PARIS.—From the 18th of November to the 24th of the same month, 1906, the number of births was 901, and of these 671 were legitimate, 230 unlawfully begotten. From the 25th of November to the 1st of December, 1906, there were 935 births, 706 legitimate, 229 born out of wedlock. According to the official census of 1901, the population of Paris amounts to 2,660,559 inhabitants.

The mortality of Paris during the week ending on the 24th of November,

1906, was 895, as follows: 468 males, 427 females. During the week ending on the 1st of December, 1906, the deaths ascended to 909, and of these 461 were males and 448 females.

The causes of death during the week ending on the 24th of November, 1906, were as follows: Typhoid fever, 9; scarlatina, 2; whooping cough, 1; diphtheria, 4; grippe, 5; other epidemic diseases, 2; tuberculosis of the lungs, 189; tubercular meningitis, 15; general tuberculosis, 12; cancer and other malignant tumors, 56; simple meningitis, 14; hemorrhage and softening of brain, 70; heart disease, 62; acute bronchitis, 12; chronic bronchitis, 24; pneumonia, 22; other affections of the respiratory tract, 72; diseases of the stomach, (cancer, etc.) 3; diarrhœa and enteritis from 0 to 1 year old, at the breast, 12; bottle fed, 25; diarrhœa and enteritis, from 1 to 2 years, 1; hernia, intestinal obstruction, 5; cirrhosis of the liver, 19; nephritis and Bright's disease, 30; female genital organs, cancerous and other, 7; puerperal septicemia, 4; accidents during pregnancy and labor, 4; congenital debility, 16; senile debility, 38; violent deaths, 30; suicide, 15; other diseases, 113; unknown or ill defined maladies, 17. Still-born and deaths before the civil inscription, 68, as follows: 50 legitimate, 18 illegitimate.

The causes of death during the week ending December 1st were: Typhoid fever, 7; measles, 3; whooping cough, 2; diphtheria and croup, 3; grippe, 2; other epidemic diseases, 4; tuberculosis of the lungs, 194; tubercular meningitis, 16; general tuberculosis, 16; cancer and other malignant tumors, 66; simple meningitis, 26; hemorrhage and softening of the brain, 49; heart disease, 84; acute bronchitis, 9; chronic bronchitis, 11; pneumonia, 30; other diseases of the respiratory organs, 91; affections of the stomach, 3; diarrhœa and enteritis, from 0 to 1 year, at the breast, 3; bottle fed, 24; diarrhœa and enteritis, from 1 to 2 years, 1; hernia and intestinal obstruction, 10; cirrhosis of the liver, 12; nephritis and Bright's disease, 28; diseases of females, non-cancerous growths and others, 7; puerperal septicemia, 5; accidents of pregnancy and labor, 1; congenital debility, 29; senile debility, 26; violent deaths, 30; suicides, 13; other maladies, 111; unknown and ill-defined diseases, 6; still-born and deaths before the civil inscription, 63, as follows: Legitimate, 47; illegitimate, 16.—*Le Progres Medical*.

NOTE.—It is remarkable that in Paris, as in Philadelphia and other large cities of the Union, cancer, tuberculosis and other broncho-pulmonary troubles, keep on claiming with increased vigor a larger number of victims every year, and this while our friends, on the other side of the fence, are daily boasting about the wonderful and steady progress made in therapeutics. As to typhoid fever, moreover, better drop comparison with any other city of the world, the least said the better for us. According to our last official report, published in the *Public Ledger*, during the last year, 3,160 persons died from tuberculosis of the lungs, as against 2,829 in the previous year. Pneumonia claimed 2,693 victims, heart disease, 2,296, and gastritis carried off 2,031 children under 2 years of age. I regret to ignore how many of these children were breast-fed and how many were bottle-fed. The mortality from typhoid was last year 1,061, being an increase of 377 over 1905. The death rate in 1906 was 18.63; in 1905 it was 17.25. These are not speculations, but facts.

MORE THERAPEUTIC PROGRESS. Prof. Robin, of the faculty of Paris, and member of the French Academy of Medicine, after studying the nature, evolution and final crisis of pneumonia, and showing the possible importance of metallic ferments to aid nature's effort in the terminal crisis, comes to the following conclusions:

1. After the failure of serotherapy and of the etiological and pathogenetic treatments, the therapeutics of pneumonia remains still limited to armed expectation, which is nothing else but the medication of the predominant symptom. However, the study of the general and respiratory exchanges, permit us to take hold, at least, of some of the methods of defence of the organism, and in all cases, one of the intimate mechanisms of the curative crisis, furnishes the elements of a naturist treatment, according to the hippocratic conception.

2. At the moment of the defervescence of pneumonia, discharges of urea and uric acid take place, and these discharges often precede (decharges precritiques) the fall of the temperature, while at the same time increase the coefficient of utilization of nitrogen.

3. These phenomena, far from coinciding with a parallel increase of the respiratory exchanges, are on an equal footing with them. They do not, consequently demand the consumption of a greater quantity of oxygen.

4. The spontaneous pneumonic crisis has then, as one of its immediate conditions, if not as a cause, not acts of direct oxidation, but rather acts of oxid-reductive hydration which indicate the reactionary process of the defence of the organism against pneumococcic aggression.

5. The metallic ferments, which increase the total nitrogen, the urea, the uric acid, the co-efficient of nitrogenous utilization, all while diminishing the consumption of oxygen, and which consequently augment, not the direct oxidations, but the acts of oxid-reductive hydration, do act in pneumonia in the same direction as the spontaneous curative effort of nature, and may serve to provoke it, to aid it, or perhaps to make up deficiency.

6. Observation has shown that they have no action upon the pneumonic lesion itself. They only act upon the toxiferous element, superimposing to the vital and personal reactions of the organism a parallel activity, that translates itself by a more rapid disposition of the correlative general symptoms of this toxi-infection.

7. They are then, but the elements of treatment of the disease, in some way or other they represent, the point around which come to group themselves, the due cases, the various indications that may be required for the unexpected complications, for an exaggerated symptomatic predominance, and for the accidents of the lesion itself.

8. Outside of these medications, in the cases where they are justifiable, the treatment of pneumonia by the metallic ferments demands such adjuvants as bleeding, according to the case, then calomel, a dose divided into fractions, administered only once, alcohol in moderate doses, bichlorhydrate of quinine in small doses, which should be associated to pyramidon from the fourth day of the disease, and finally, fly-blister commencing on the fifth day.

9. The metallic ferments produce with sufficient regularity, a lowering of the temperature, a special urinary reaction, and a slight elevation of the arterial tension.

10. Of 53 cases treated by the above method, and of these 26 very ser-

ious, only six died, or 11.32 %. In 63% of the cases, defervescence occurred before the eighth day.

11. The treatment seems less active in cases of secondary broncho-pneumonia of a serious character. Thirteen cases, all very serious, gave six deaths or 46% mortality.

12. The metallic ferments are employed in deep hypodermic injections, at a dose of 10 cc., or in intra-venous injections of 5 cc., in very serious cases. The nature of the metal appeared indifferent. The injections should be commenced on the fourth day and continued about every two days. One can systematize very easily the ensemble of therapeutic acts which constitute the complete treatment of pneumonia.—*Le Progres Medical*.

APPENDICITIS.—Dr. Karrenstein, of Altoona, has arrived at the following conclusions:

1. It has not been proved categorically that the increase of cases of appendicitis is not positive. Almost all observers have on the contrary the impression that the increase is absolute.

2. The disease has become more frequent, not only since 1890, after it has been better known, but long before that time.

3. It has been twice more frequent in Hamburg than in Berlin.

4. In the army, the cases are principally more numerous in the garrison of large cities.

5. The malady has not increased in malignity.

6. In the army, it is less frequent in January and in June and July.

7. The chief cause is the stagnation of the secretion, due to the narrowing of the anastomosis of the orifice in the cæcum. The more virulent the infectious agents, the easier is its development.

8. Appendicitis is not an specific infection.

9. Traumatism is rarely an etiological factor.

10. Appendicitis running in families are sufficiently unexplained by the hereditary anatomical disposition of the appendix.

11. The epidemic of grip in 1890 is the cause of the increase of cases of appendicitis which suddenly occurred at that period.

12. Grip is an etiological factor, principally in winter; in summer, it is the affections of the digestive canal that prevail.

13. Angina or sore throat may occasionally influence the frequency of the disease.

14. Men and women are alike attacked.

15. It is not certain that appendicitis is more frequent in children than in adults. It is rare in the first year of life.

16. It decreases after 30 years of age.

17. It is more frequent between the ages of 20 and 30 years.—*Le Progres Medical*.

CRATAEGUS OXYACANTHA.—Dr. Homedes, of Barcelona, Spain, reports (*Boletín del Hospital Homœpata*) an interesting case of mitral lesion with marked stenosis of its orifice, which he examined during the period of compensation, and consecutive to an endocarditis due to cold. After advising moral and physical rest he prescribed spigelia, principally for the violent

palpitations and severe precordial pains, but without improvement. Eight days later he changed to spongia, on account of an increasing dyspnoea, and also to arsenicum 6. to meet the developing oedemas and the rapid, weak pulse, but without results. The case becoming more grave every day, Dr. Giro was called in consultation, and they decided to give lachesis 12 and antimonium tart. 3; chiefly to combat the lack of cardiac equilibrium and hyposystolia. These remedies were abandoned after 24 hours of insuccess, and replaced by digitalis, which proved to be a failure. Under the alarming circumstances *cratægus oxyacantha* was administered, at the usual dose of five drops every three hours, and a steady improvement followed. In 24 hours the diuresis became abundant, the pulse more regular, and three days after, both edema and dyspnoea disappeared, the pulse gained still in strength and the patient thought she was well enough to take a walk. As the pulse, however, was still somewhat accelerated and feeble, the heart continued to struggle with the same obstacle, and its walls already dilated, were exposed to degeneration from excess of function or fatigue of the myocardium, he prescribed again arsenicum 30, whose profound action upon the nutrition of that organ is so well known. At this height of the report he quotes Dr. Imbert Gourbeire, who in his book on the action of arsenic upon the heart, says: "The heart also shares in the fatty granulous degeneration sometimes observed, at the autopsy, in cases of arsenical poisoning." This is confirmed by Dr. R. Hughes, who states that this drug is well indicated in fatty degeneration, when this invades the heart at this period (hyposystolia). "Arsenic by its profound influence upon nutrition, is capable of arresting for sometime cardiac dilatation and of maintaining the circulatory equilibrium." The same view is upheld by Dr. Geo. Balfour, in his "Senile Heart," and according to Dr. Clarke, "It seems as if its action upon the cardiac muscle is to check degeneration and to restore its vitality."

Notwithstanding the rapid improvement obtained by *cratægus* and the immediate administration of arsenicum, five days after the dyspnoea and malleolar oedema reappeared, and consequently digitalinum 3x (crystalized digitalin 1-1000) ten drops daily was given for three days, but the patient became worse and worse, and the drug was discontinued. A return to *cratægus* brought again a complete circulatory equilibrium, and in two days the recovery of the patient was an accomplished fact.

Fearing a further progress of the cardiac degeneration, arsenicum was again prescribed, and this time it did seem as if the non-return to digitalis or its alkaloid, favored the steadiness of the cardiac equilibrium, which when disturbed by any cause whatever, was again rectified by *cratægus*.

According to Dr. Homedes, *cratægus* was first employed by an Irish homœopathist (Greene), who gained by his success a great reputation in diseases of the heart. After him, Dr. M. C. Jennings, of America, appears to be the first to report some clinical cases which were published in the *New York Medical Journal*, October 10th, 1906, and in which he praises the great power of this plant to restore defective compensation.

This new remedy deserves better consideration by the clinicians and provers, in order to establish its pathogenesis on more solid bases. It should be thought of in cases where there is lack of cardiac compensation, in valvular lesions, cardiectasis, myocarditis and fatty degeneration.

AGAINST HYPOASYSTOLIA.—The association of *convallaria majalis*, 6 grammes, with sulphate of sparteine, 1 gramme, is highly advantageous in chronic heart disease, not only to maintain, but to prolong the cardio-tonic action of digitalis. It should be given for two or four weeks, at a dose of 2 to 5 drops, three times a day.—*El Progres Medico*.

NATRUM MURIATICUM, or common salt, is a daily article of food, or rather a daily aid to the absorption of food—how then can it be a curative drug at the same time?

If we say, by its attenuation, and thus its absorption by inner organs which control vital processes, then we are immediately asked, how does the daily dose in the food escape similar attenuation, and further, how can triturated iron, silver, tin, or silica affect us as medicaments, when we are daily getting particles of the same in our food from the utensils of the kitchen and the dishes of the table?

I reply that these small particles are not attenuated in ordinary use, so as to release their molecular activity; which happens when the drug is attenuated in the presence of a neutral medium or vehicle, by which, after due succussion and trituration, the molecules are held sufficiently apart to be active, and permanently so.

This may and does occur in some substances at a lower degree of attenuation than in others, rarely at the first, better at the third, sixth, twelfth or thirtieth. Beyond this any gain is inappreciable in most cases.

In the future U. S. Pharmacopeia, common salt will have, beyond its present uses as a chemical substance, as a "normal salt solution" for hypodermoclysis, or as a gargle, douche or bath or lotion, its homœopathic or dynamic uses, some of which are as follows:

In common colds in the head, and in hay fever, as preventive and cure, it is unsurpassed.

In many ailments from starvation, or in emaciated, marasmic or cachectic subjects, especially if irritable and melancholic.

In headaches, alopecia, pyrosis and dry constipation, in eczema, urticaria, dermatitis solaris, in nightmare and in somnambulism, it is a master drug, but its chief laurels have been earned in malaria, in competition with the vaunted quinia.

For special indications, consult the text-books, and you will find that the dictum of the old school, as I heard it given by the Dr. Young I have already quoted, namely, that in the treatment of all forms of malaria, "quinine covers it like a tablecloth," has some exceptions, after all.

How soon will the day come when every physician will put aside prejudice and learn the law? All other investigations are allowable to every one, but pride, and a mistaken idea of consistency, forbids the use of homœopathic attenuations. In a progressive, living science, such conservatism has no place. It must go out with the rusty signs and the dirty hands, that characterized the old physician in times not gone, but going.

All physicians will finally unite in clean and honest progress, and medical sectarianism will cease.—*N. A. Journal of Hom.*

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THE TREATMENT OF ACUTE INFECTIOUS DISEASE.

BY

WM. C. GOODNO, M. D.

(Read before the Homœopathic Medical Society of the State of New York.)

WHEN your President honored me with an invitation to attend this meeting and gave me the privilege of offering you anything my little storehouse might contain, I cast about to find some subject worthy of the occasion. As several passed in review I decided against one after the other for various reasons, but mainly because each appealed to a portion only of the medical profession. I decided finally to follow a rule I established for myself years ago, viz., to select such subjects for the consideration of large bodies of practitioners as possess features of clinical interest to the majority of those who listen to me. I have selected for this evening's consideration a very practical subject with the thought that, after all, in this era of investigation so often instituted for pathological or bacteriological results only, the most valuable contribution one can make to the doctor who morning, noon and evening, and often all the night through, is worrying his brain and wearing out unduly his body to find some source of relief and cure for his sorely distressed patients, is some bit of practice or reasoning which will really help him or direct his mind into lines of thought which will enable him to search out help for himself.

With this object in view I invite your attention to "The Treatment of Acute Infectious Disease," with particular reference to some experiences in the use of phenol in the treatment of infections.

In the present state of medical science one of three methods of combatting disease is employed. First, by the Homœopathic remedy; second, by what in common parlance is called "Old School" treatment, i. e., meeting the various conditions and symptoms developed by a disease process by the use of drugs which antagonizes them. For instance, the use of morphine for the control of pain, diuretics for renal inadequacy or of expectorants for difficult expectoration, are examples of such application of drugs. But further, based upon theories of disease or a positive knowledge of its pathology, the physiological action of drugs is often employed to secure certain effects, for instance, the administration of chloride of calcium for hemorrhage, which it is supposed to influence through its power of increasing blood coagulation. An explanation of the *modus operandi* of certain remedies, such as iodide of potash, in the treatment of constitutional syphilis, has not yet been explained. Third: through the use of certain antitoxic serums, or of drugs exhibited for their antibacterial and antitoxic influences.

As to the first method, that by the homœopathic remedy, we know that it possesses value. How it acts is yet a matter of conjecture. Perhaps, as Dr. Herbert Moore suggests, it may be explained by the "side chain" theory of Ehrlich, but however it acts it seems certain that it in some way increases the defensive power of the body. While its use modifies and, possibly, in some instances, shortens infectious illness and lessens mortality, we cannot claim such successful results as follow the use of antibacterial and antitoxic agents in the forms of disease for which they have been successfully developed, notably in diphtheria. Of late most effort has been in the direction of the development of antitoxic serums, but the development of effective antitoxins has been beset with much greater difficulties than it was at first supposed would be the case. In considerable measure this has been due to the fact that clinical entities we call by certain names, e. g., influenza, pneumonia, etc., are due to the combined action of two or more micro-organisms. One form seems to be specific to the disease and the others act by virtue of its presence as well as of the pathological changes it has excited. Clifford Allbut has graphically ex-

pressed the combined action of micro-organisms, as related to influenza, as "the conspiracies of influenza," referring to the ready association of the Pfeiffer bacillus with that of pneumonia or of tuberculosis, or with some of the cocci, giving rise to occasional complicated cases or to peculiar mixed infections, such as have frequently occurred in the form of local epidemics and presenting correspondingly peculiar clinical characters. Presslich last year reported such an epidemic occurring in Vienna. He personally examined 154 cases and points out the higher mortality and longer duration (32.7 days against 4—6 days in the pandemic of 1889—90). In the 154 cases there were 15 pneumonias, 16 pleurisies, 8 cases of endocarditis, 7 cases of tuberculosis (rekindled activity probably) and 5 cases of otitis media.

It is some five or six years since I observed in a medical journal, or some annual of medical science, the statement that two French observers had demonstrated that phenol could be given in what had been heretofore considered to be very large or even poisonous doses if the agent were perfectly pure and had undergone no decomposition, and that the disturbing influence sometimes observed from the use of this agent was due to impurities, mainly of decomposition. These experimenters gave phenol in quantities as great as three hundred grains *per diem* without the development of disturbing or poisonous symptoms. I have a most distinct recollection of these facts, but in spite of quite a search made during the preparation of this paper I was unable to find the original. This is of small importance, however, and I have mentioned these observations only for the purpose of indicating what first led me to commence the therapeutic investigations I shall present to you. My first thought was that a small portion of the three hundred grains of phenol which it had been shown could be administered in one day without bad results to the healthy might exercise a sufficient influence upon the growth of parasitic forms of life within the human body, and especially upon their toxins, to arrest or modify infectious disease. I accordingly commenced its employment in a variety of infectious diseases. I have steadily persisted in the investigation with, to me, increasing evidence of the great value of this agent in the treatment of a considerable variety of infections, especially of an acute character. For this purpose I have employed the absolute phenol of Merck exclusively. It is furnished in the form of fine white

crystals, which, if free from decomposition, yield, with glycerin and water as a solvent, a perfectly colorless solution. Crystals, no matter how white and pure looking, have been discarded if the solution exhibited any degree of pink color. It is not uncommon for original packages of these crystals to give a decidedly pinkish color when dissolved, the package having been kept in stock too long. As a rule fresh crystals will keep for several months after they are procured from the dealer, if they are kept in amber bottles and in a dark closet. They are several months older, however, this time being represented by the period intervening between their manufacture and their delivery by the local dealer. Solutions varying from two to five per cent. are convenient for use. They should be kept, like the crystals, in amber bottles and in a dark closet. If doses of three to five grains are given by the stomach they are best administered in six ounces of water and preferably after food. If taken on an empty stomach phenol sometimes produces head symptoms similar to those caused by quinine. Doses of one or two grains never annoy. Some of the finest results from the use of phenol follow its hypodermic use. This applies to both acute and chronic forms of disease. In young and middle-aged subjects the five per cent. solution is a satisfactory concentration, but in old persons, in whom the blood vessels and tissues are not in good condition, phenol had best be used cautiously, especially when injected into the lower extremities. I have not, however, observed any unpleasant results from the injection of phenol many hundreds of times, but as slight injury either of a chemical or mechanical nature may cause necrosis in patients of this class, it is wiser to exercise care in its employment. In the old I have not used solutions stronger than one *per cent.* hypodermically, and often weaker. It is quite possible that in many cases injections given at some indifferent point may act quite as well as at the location of the pathological changes, but in most cases I have made the injections, as in rheumatism, at the points of pathological change. If the skin is raised between the fore finger and thumb and pinched a little, while a point of ice is applied firmly for a minute or two, the needle puncture is scarcely felt. When several injections are to be made at one time this little precaution saves the patient considerable pain. Being a local anæsthetic the phenol quickly removes any discomfort caused by the injection. While I have frequently employed forty to sixty grains of the phenol in a

day, I have never observed "carboluria" or other evidence of poisonous action, with one possible exception. Recently, Dr. Killian, one of our Internes at Hahnemann Hospital, Philadelphia, asked my advice respecting a severe attack of influenza which was attended by fever and active catarrhal symptoms. I suggested five grain doses of phenol after each meal. Some days later, as I left the city immediately after seeing the Doctor, he informed me that his grip "slumped" at once, but that his urine became dark as if containing coffee about forty-eight hours after commencing the phenol, but that this color soon disappeared. I was suspicious that the condition was due to irritation of the kidneys, but as no analysis of the urine was made this could not be determined. Without my knowledge, however, the Doctor took upon himself to experiment with the drug, taking it in five grain doses as before, and continuing it for over two weeks without any change of color taking place in the urine or any disturbance of the kidneys. This was corroborated by analysis. In ordinary doses, up to ten or fifteen grains *per diem*, phenol appears to stimulate rather than depress. In such doses it acts, possibly, as a medullary stimulant, raising the vascular tension. The opinion, which seems to be quite general, that the dark color of the urine often observed in phenol poisoning is due to blood and is an indication of renal degeneration, is without support. Recent pharmacological investigations show that the smoky tint of the urine is not due to blood, but to the presence of the phenol, which is excreted mostly as phenyl sulphuric acid. ($\text{O. SO}_2 \text{ O H.}$) A portion is also excreted in combination with glycuronic acid and still less is partially oxidized to pyrocatechin and hydroquinone. These bodies give to the urine its smoky tint. Oxidation increases on standing with the result that the color gradually darkens. That phenol may, however, cause nephritis, especially if the kidneys are already defective, is undoubted, but only when taken in poisonous quantities.

My first trial of phenol, excepting my long time use of it in scarlet fever, was in the management of influenza. At first it was administered only to typical cases of the disease, i. e., those accompanied by fever, catarrhal symptoms, etc. Later I employed it in the treatment of what we commonly call "colds," but who can draw the line of demarcation between these two groups unless the microscope is employed, and even this does not separate them clinically, for we have learned that true in-

fluenza may exist in an exceedingly mild or in a chronic form. For well developed grip in the adult five grains of phenol should be given in six ounces of water after each meal and be continued for one or two days according to the severity of the attack, after which half doses had best be continued until the patient fully recovers. In most instances there is evident control of the disease within twenty-four hours.

In many cases the temperature does not rise above normal, or but slightly so upon the second day, and much less frequently so on the third day. Indeed, the disease generally slumps, as Dr. Killian expressed it, as soon as the patient comes fully under the influence of the drug. No other remedy is required to help out, as the phenol strikes at the very essence of the disease, and all of the results of its action subside and disappear. Most important of all there is, in cases treated by phenol, an almost complete absence of the prostration so frequently and markedly developed in association with influenza. The bronchitis is very positively influenced. In some cases in which the phenol has been discontinued too soon or has been administered in too small doses, with the result of an increase of the patient's symptoms, especially of a bronchial character, full doses have usually given prompt relief.

Against ordinary "colds" characterized by rhinitis or bronchitis or catarrh of the whole respiratory tract, phenol is an effective remedy. During the past month influenza has been quite epidemic in Philadelphia. Many of the cases have been of a severe type. I had an opportunity to study a "house epidemic" in my own home. My mother and sister, who were visiting me, were the first victims.

CASE I.—A feeble old lady of 86. First day: Slight chill, followed by a temperature of 101.2° . General pains, cough and prostration; phenol, grs. V. t. i. d. Second day: Temperature, 99.1° . All symptoms diminished. Phenol in half doses continued for two days longer, then stopped. Improvement apparently continued until on the sixth day cough developed during the night, was quite troublesome and attended by much loose rattling in the bronchi. Phenol, grs. V. t. i. d. Seventh day: Cough much lessened. The cough continued to diminish from day to day and was entirely controlled by the tenth day. There was very little feebleness sequential to the attack.

CASE II.—A woman of 60. First day: No chill; temperature rose to 102.3° . General pains, especially headache. Much

cough. Feels very miserable. Phenol, grs. V. t. i. d. Second day: Temperature, 100° . Cough less in frequency, but much loose rattling and expectoration. Feels better generally. Third day: Temperature normal. Cough and expectoration less. Fourth day: Temperature normal. All symptoms rapidly diminishing. Continued phenol, in gradually diminishing doses, for five days. Debility was slight and quickly disappeared.

CASE III.—Colored butler of 60. Felt ill for twenty-four hours before reporting, when he looked quite prostrated. When first examined, upon the second day, his temperature was 103.4° . Cough frequent and dry. Respirations 30, pulse 130; complete anorexia and heavily coated tongue. Phenol, grs. V. t. i. d. Third day (second of observation): Temperature normal in the morning with a rise to 100° in the evening. All symptoms relieved. Continued phenol in full doses. No return of any active symptoms. Felt weak for a few days only.

CASE IV.—Chambermaid. First day: Slight chilliness; temperature, 100° ; is sweating and feels weak. Slight cough. Phenol, grs. X, given at once. Continued in doses of grs. V. t. i. d. All symptoms disappeared in twenty-four hours.

SCARLET FEVER.—It is now fully twenty-five years since Wiggelsworth, of England, commenced the use of phenol in the treatment of scarlet fever. During this long period he has published a number of striking papers upon the subject, but they do not seem to have received the consideration they merit. Not only does he conclude that his control of this disease by means of phenol has been much more satisfactory than by other methods, but that children infected by those who have been treated by phenol develop the disease in a mild form. Viewed from a bacteriological standpoint, this is entirely possible. As for a dozen years past I have seen out-patients only with other practitioners, my opportunities for observing scarlet fever cases before they have become thoroughly poisoned has been limited during this period. For several years previously, however, I made an occasional use of the phenol in the treatment of scarlet fever cases, when seen in the early stage, and was much impressed by the results. This experience was sufficient to incline me to believe that Wiggelsworth's contentions were probably correct.

Judging by the great frequency of the violation of the most important principle underlying the treatment of infections it is

impossible to reiterate too often that in order to the successful antitoxic treatment of infectious disease in any form it is essential that the agent used for this purpose shall be administered at the earliest stage of development of the disease, i. e., before the pathological changes in the blood and tissue are developed in any considerable degree. The blood and tissue mischief which leads to the alarming manifestations of any form of infection are, unfortunately, already present, while the patient is still free from symptoms exciting apprehension. When this fact shall be generally recognized and acted upon in practice, the mortality from this great and unnecessarily prevalent group of diseases will be strikingly lowered.

PNEUMONIA.—As yet my employment of phenol in the treatment of pneumonic fever has been small, largely for the reason that other agents first claimed my attention as possible remedies for this form of infection; and life, and consequently experience, are altogether too limited to permit trial of a great variety. Those cases I have treated with it have been in the main pneumonias developing in connection with influenza, usually influenzas which have run for days without the phenol treatment, and in which a complicating pneumonia has not been made out certainly at the time of prescribing the drug. While preparing this paper I saw a large, gouty woman of 64 years of age, whom I had previously treated in my office for a large, feeble, arrhythmic heart, without evidence of valvular disease, who had developed influenza with typical symptoms. Upon my first visit I found her temperature 102.8° ; respirations, 28. Much cough with mucopurulent expectoration and multitudes of small moist rales all over the bases of both lungs. There was severe pain in right lower chest, quite constant, but much aggravated by breathing and moving. I could not make out the definite signs of pneumonia, but as she had had previously two attacks of gouty neuritis, once in the arm and the second time in one of the lumboabdominal nerves, I at first suspected the pain might be due to a recurrence of this affection. She received phenol, grs. V. t. i. d. There was prompt improvement in most of her symptoms. After two days, however, the presence of pneumonia was easily determined by the physical signs, but as the respiration had but slightly increased and the general condition was improved, I continued the phenol. There was no further increase in the severity of the symptoms,

but, indeed, a rapid diminution. Considering the character of the subject of this attack the result was a surprise to me.

ERYSIPELAS.—For many years I have, like many others, employed phenol in weak solutions as a remedy for erysipelas. It must be twenty years since I first published cases treated in this manner. Of late years much better results have followed the use of stronger solutions, but, as in the antitoxic treatment of any form of infection, the treatment must be instituted early if the best results are to be secured. The best plan of procedure is, if a hairy surface is to be treated, to clip or shave the hair to well beyond the involved surface. Apply hot fomentations for fifteen minutes, then quickly dry and paint the inflamed area well beyond the lesion with the phenol, which is to be liquified by warmth and a very small quantity of glycerin and water. Within a few minutes the surface becomes white and shriveled like a washerwoman's fingers. When this condition is well marked the action of the phenol is to be neutralized by 95 per cent. alcohol applied upon pledgets of cotton, with due care to prevent spread over too much of the sound skin. As the most active growth of the streptococcus is taking place in the lymph channels at and beyond the peripheral edges of the inflamed area, the application must be made with especial care at and beyond the edges of the lesion. In my hands this method has not once failed to arrest the process promptly if applied before the inflammation has been extensive and the toxæmia virulent. I have occasionally made a second and even a third application, but this must be seldom necessary.

RHEUMATISM.—During the past year I have treated all my cases of rheumatic fever in the wards of Hahnemann Hospital by means of phenol. The results have been quite surprising to a considerable number of physicians who have observed the cases. The average rheumatic fever is arrested and cured in a most spectacular manner. My method has consisted of daily injections of the phenol near or over the affected joints. The quantity of the drug injected has varied from one to two grains. The treatment has been continued until all acute symptoms have completely subsided. Several cases developing endo and pericarditis have received injections over the heart. In every instance the cardiac inflammation has subsided and the patients have been discharged with normal hearts. Regardless of the severity of the case the pain has, as a rule, been controlled within twenty-four hours and has disappeared with-

in two or three days. In none of the patients treated has there been a return of the disease after its first control. Notwithstanding this we have kept our patients in bed for at least a week. Persons admitted with advanced attacks require more time for both relief and cure. Those who have had repeated attacks declared that they have never experienced such rapid results before; indeed, the relief has been so remarkable in its rapid development that patients have watched their cases with marked evidence of interest. I have experimented with salicylate of sodium and a variety of remedies, hypodermatically, for several years past, but have found no remedy to compare in efficiency with the phenol. At first I feared that chronic arthritis would not respond to this treatment and, consequently, did not try it in such cases, but in this I was wrong and Bartlett first showed me what it would accomplish for this class of cases. The first case of chronic polyarthritis I employed it for was under the care of Dr. Charles H. Conover, of Philadelphia. This man had been a sufferer from the disease for three years. During the past year he has not only been incapacitated from labor of the lightest kind, but has been bed-ridden and taking large doses of narcotics at night for the relief of his terrible suffering and sleeplessness. The patient had had full benefit of most careful homœopathic prescribing for a long time before the doctor, for pure humanity's sake, was forced to relieve his suffering. Dr. Conover came to see me in relation to the case, and after describing his sufferings said, 'For God's sake tell me something to relieve this poor man; I am ready for anything.' I suggested phenol. It was injected near each principally affected joint, once daily. After two groups of injections no more morphine was required. After eleven groups, administered in as many days, the man walked out of doors and has been steadily improving since. In a long-standing case of this character in which much joint mischief has taken place, anatomical recovery can hardly prove perfect. A number of other cases of chronic rheumatism have now been treated by the phenol method and I can commend it to you most earnestly.

My experience with phenol in the treatment of neuritis has been recent and not large, but most encouraging. The last case consulted me on January 21st. This patient was a lady of 36, who had been much impaired in health for several years. She was attacked very suddenly in the

early morning with intense pain in the left arm. Within a few hours the pain extended from the point of onset, about the middle of the arm, down the forearm and into the hand, especially into the thumb. There was every evidence that the pain was violent. There was tenderness of the whole painful area, but especially marked along the main nerve trunks in the arm. I injected one grain of phenol in 30 minims of water and glycerin. This was followed by a peculiar "prickling" sensation throughout the entire limb. All spontaneous pain ceased within an hour. On January 23d a second injection was made near the first one and a third injection upon the 24th. The second injection was given because of slight return of pain. The third one, however, was probably unnecessary. During the previous night the patient had awakened with pain and found she had her arm under her head. The pain caused was not great and was decreasing when I saw the patient, but she insisted upon having the injection. The arm and forearm remained a little tender and felt, to use the patient's expression, like a "sick baby" for a full week, but there was no return of pain, although up to the tenth day the patient complained that the limb seemed to her hard and swollen. Neither measurements or touch confirmed this view of the patient.

A gentleman who was spending last summer in Germany was attacked with neuritis of one of the lower right intercostals. He was treated by German physicians for several weeks, without results, and arrived in Philadelphia October 20th unimproved. One injection of two grs. of phenol placed within the most tender focus was followed by almost instant relief. There was no return of pain.

In my endeavor to avoid a long paper I have treated the subject very superficially, I am afraid, but hope that enough has been stated to enable those who care to adopt the method to put into operation a treatment which will afford them much satisfaction. It is not a method which can be employed successfully by the originator only, but by any doctor who has arrived at that point in experience at which he realizes that no matter how simple a therapeutic method may appear to be it must be mixed with brains in order to obtain the best results.

ACUTE ANTERIOR POLIOMYELITIS.

BY

JOHN HUTCHINSON, M. D., NEW YORK CITY.

(Read before the Homœopathic Medical Society of Western Massachusetts.)

THE title does not fit exactly the subject matter of this paper. Attention is invited more particularly to the last stage of the disease, of which the name Poliomyelitis suggests the pathological beginnings.

The first stage of infantile paralysis means Invasion, with sudden loss of volitional power; the second stage brings Atrophies, and the third Deformities.

Accordingly, the results of inflammation of the anterior horns of the spinal cord give the sequence, hemiplegia, contractions, retarded growths, or arrest of development of all tissues, including osseous; and, consequently, atrophy and deformity.

The origin commonly dates from a night in infancy, and, being rarely fatal, the effects persist thereafter throughout a lifetime. Primary fever, if any, lasts only from three to seven days. Often the first sign of illness that is recognized is when the child awakens in the morning with paralysis in one or more extremities.

Muscles of volition are affected, usually those of the lower limbs, and wasting may be followed by complete atrophy. Therefore all grades of deformity are possible. Acute atrophic paralysis is a descriptive synonym, and the condition taxes medical skill during the whole life of the patient.

Talipes of pronounced form, frequently a combination of two or more varieties, follows the contraction of muscles—the anterior tibial group, those of the calf, and the plantar fascia. Division of all the resisting tissues is classic treatment, which of course does not go to the root of the trouble.

The question is, Can we at any time or at any stage of the malady reach its root? Or, what can be done further to remove the effects of inherent causes, such as those which have been and still may be active in the organism?

Glancing a moment at possible etiology, in either epidemic or sporadic cases, we must consider:

Maternal physical condition at the birth of the child.

Quality of breast milk or substituted food.

Maternal disease, if any, at childbirth.

Bacterial excitant or microbic invasion.

Disturbed vitality from any cause.

Digestive vagaries, or gastro-intestinal disorder.

Imbalance of nervous system.

Structural defects of nerves.

Anomalies of nerve distribution to special structures.

Imperfect nervous system analogous to defects of other organs.

Of these factors, probable or not, we know nothing except as information has come through the investigation of remedies by provings. Symptomatology thus elicited has opened an entirely distinct avenue of study to the phenomena of disease. It is not that remedy which will produce a given pathological product, say degeneration of nerves and muscles, that we seek, but we require that remedy which will produce symptoms like those symptoms of a patient in whom the morbid product exists.

In this acute infectious disease, though the bacterial origin is unknown, inflammation begins in the blood vessels of the anterior cornua, usually at the cervical and lumbar enlargements. The morbid anatomy of infantile paralysis consists of a shrunken anterior horn from destruction of the large ganglion cells in its gray matter.

Some of the paralysis may disappear after the first attack of the symptoms, but much remains. Contractures result from the action of opposed muscles. Development of the limb ceases, and deformities are inevitable.

We approach the study of a case, then, with a view to its individual betterment. Each patient presents a species of the typical condition described under a classification that is recognized as facilitating the study and treatment of one group of ailments. Hahnemann demonstrated that such grouping in itself is not sufficient to suggest the most appropriate care.

The homœopathic physician is permitted to enjoy more pleasant surprises than perhaps any other professional worker. He is never compelled to define the limitations of the law to which he gives the homage of faithful allegiance. Time and again the case "incurable" has been referred to him, and he has tacitly accepted the situation, till careful study of its pecu-

liarities elicits a guide to the key which opens the door of that organism to another and more extended field of normal opportunity.

I am of the firm conviction that no invalid lives that cannot be infinitely helped by Homœopathy. But it should be well understood that the problems involved in serious cases are tremendous, and they cannot be lightly assumed by any therapist. Homœopathy applies to all grades of illness; we have remedies adapted to the superficial and to most deeply-seated ailments. Each personal case must be analyzed on its own peculiar merits.

Our present case is a male patient, architect by profession, aged 42 years, 5 feet 9 inches tall, and weighing 190 pounds, September, 1901.

He says:

"I have no recollection of a time when I was not lame. I am told that it was the result of convulsions during teething, at about two years of age.

"At that time Dr. Green, a homœopathic physician of Hartford, Conn., applied electricity, and entirely restored the use of my left hand and arm, which were paralyzed at the same time with my right leg.

"My earliest recollections of my lameness are visits paid to New York, when I was under the care of Dr. Charles Fayette Taylor, who performed two operations, at least; possibly three; I don't recollect. The tendon Achilles was cut and stretched. I suppose I must have been seven or eight years old when this was done. The large flat muscle on the bottom of my foot was cut and stretched at a later date. The third was stretching the muscle on the inside of the foot below the ankle joint.

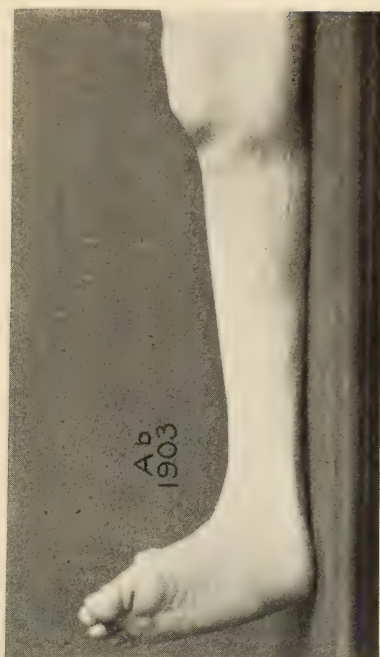
"I have worn a variety of braces, from braces fitted into the shoe, and put on with the shoe, to more or less elaborate steel affairs of various lengths, the longest reaching up to and covering the thigh.

"As I grew older I began to take care of the braces myself, and for the past twenty years I have made all the alterations necessary, and arranged the brace to fit new conditions as they arose.

"As I grew older I grew heavier, and the brace finally reached the weight of over seven pounds. From twenty to thirty-five I was constantly breaking down with nervous strain, and twice went to Europe to recover from what threatened to



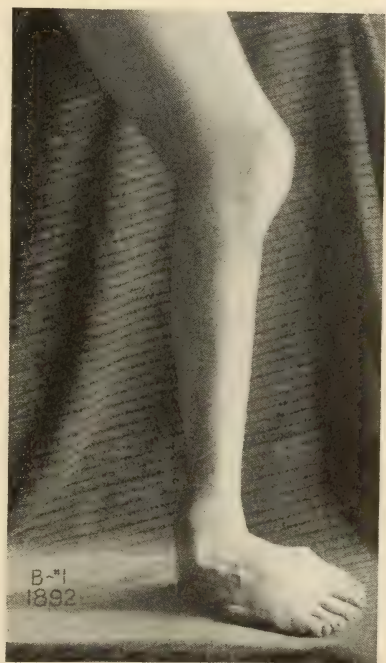
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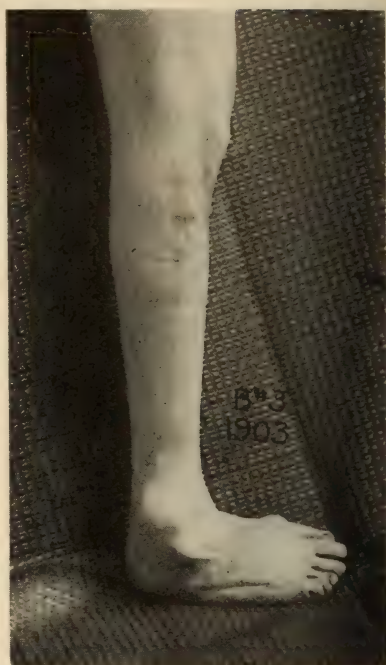
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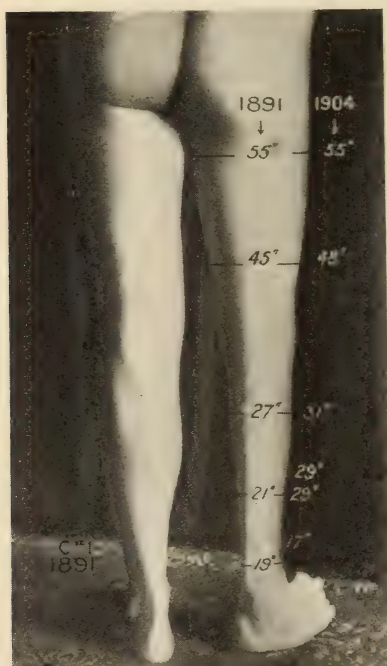
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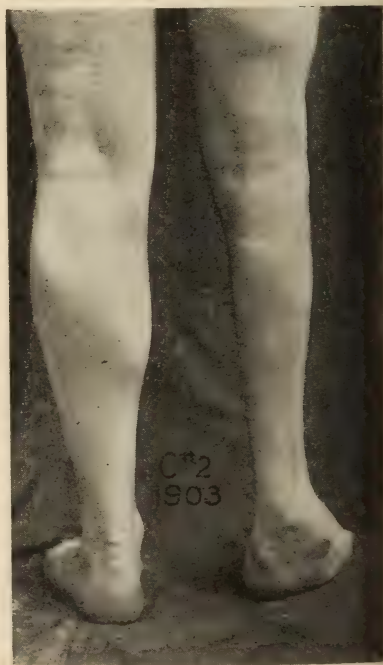
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B. No. 3, 1903.



C. No. 1, 1891.



C. No. 2, 1903.



E. No. 1, 1903.



D. No. 1, 1903.

be nervous prostration. I began to have massage fifteen years ago, and had more or less for ten years."

It should be understood that this patient had been most carefully attended by the best medical and surgical talent since the first evidences of poliomyelitis. He has received successive orthodox courses of treatment, and no measure promising benefit was neglected. Yet he could not bear his weight on his right foot. He could not rest any weight on this foot and keep it steady. Photograph B, No. 1, 1892, shows trembling which could not be helped.

Both anterior and posterior calf muscles were atrophied, and the deformity resulting was the logical one—talipes equinovarus (Aa 1892, Ab 1903) the sole looking inward, inverted. When walking the outer edge of the sole and the side of the foot rest on the ground, while the inner two-thirds of the sole does not touch the ground. (A, No. 1, 1892.)

Worthy of emphasis is the fact that this patient responds promptly and adequately to the similar remedy when requiring internal medication for minor ailment. This suggests to the

logic of homœopathic methods a possible craving of the man's system for help which hitherto had not been offered.

Furthermore, we have here maltreated structure. Members of the body have been bound, denied natural freedom, immobilized. In the first place, the brace is highly objectionable, for the reason that it holds captive the foot, and all its controlling muscles. While permitting strain compression and discomfort, it inhibits normal action. This must be changed. Without question, the tissues already wasted must be recuperated by natural means as far as possible. (B, No. 1, 1892. B, No. 2, 1903. B, No. 3, 1903.)

No semblance of tonicity is to be seen in the feeble tissues stretched over the tibia and fibula. Weight cannot be born without shoe or brace. The ankle is extremely weak.

If possible, the tissues must be invigorated, and muscle movements are prescribed. Not massage, but active, voluntary flexions and extensions. A very few are employed at first, and they are practised by the patient with all the coincident rigidity that he can command, thus insuring the greatest possible result in the minimum amount of time. He made wonderful progress. It was astonishing to discover that although a muscle seemed to be dead, certain fibres would in time respond to the effort to contract them. The calf increased rapidly in size. The peroneal muscles were less responsive.

Soon something was accomplished in cultivating power to stand on this right foot alone; all sorts of successful attempts at independent postures followed.

Within two months the leg measurements increased (C, No. 1, 1891-1904) and corresponding firmness and vigor accompanied the improved contour. Restoration of the gluteal fold may be noted in C, No. 2, 1903.

Meantime the most careful prescribing of a remedy in potency was attempted. For now the patient was well in hand, and indications for medicine would crop out in the most obvious way. *Arnica*, *Rhus.*, *Bryonia*, *Kali Bichromicum*, *Arsenicum* were some of the remedies required, and a dose accomplished wonders.

This was felt to be an all-important phase of the treatment, since nothing could promise more for the patient's future than augmented energy of the nervous system. I was fortunate enough to have the favorable opinion of an expert in neurology on what was accomplished in this respect.

The following quotation is from the patient :

"When you first spoke of my going without my brace I had no faith in it whatever, but I had reached a point when it seemed as if I should be obliged to go on crutches, and although I had no faith in your prognosis, I had faith that you believed what you said, and I was willing to try. I think it was some two or three months after you gave me the first exercises that I noticed any movement in the muscles, the first movement being a slight flickering in the muscle, which increased as the exercises were kept up.

"These exercises I have not kept up with any regularity now for over a year until this summer (1905), when I on my own account decided to develop a certain set of muscles which seemed weak, and the results began to show.

"During all these years of wearing a brace I have never known what it was to step without being conscious of my shoes, and not until the other day was I aware that I was able to wear them without being more conscious of the right than the left.

"When the special shoe was first put on, it was some weeks before I could step with comfort."

I was very much impressed when in 1905 this patient on paying me a professional visit first expressed the fact just referred to in the foregoing quotation, relative to the sensation of uniformity of both feet. At that time he further described it as giving him a sensation while sitting, as if one foot came under the same conditions as the other—as if no difference in any way really existed. This, for a new experience, struck me as being wonderfully worth while (D, No. 1, 1903. E, No. 1, 1903).

There has been an evolution in the footwear selected for this patient, some degrees of which it may be interesting to follow. The first arrangement (June, 1902,) used instead of the brace was an anklet, or close-fitting spat, made of canvas, and stiffened. This was worn in addition to the old shoe that formerly accompanied the brace.

Later a shoe built wider, and on an exaggerated curved line from heel to toe on the outer border, was provided. This sole was so wide that when the foot struck the ground the leverage was thrown out of center of foot, forcing the inside of foot down to the ground. This shoe, designed by Dr. H. P. Cole (May, 1903) was used for some months, and gave good results.

Following this model, one devised by the patient was worn, until his progress reached the point where it was possible and practicable for him to be fitted with a ready-made shoe at any shop, and wear them away (1904). But this type of footwear would soon tread out of shape and require reinforcement. However, the quick offhand selection of a pair of ready-made shoes for a foot that had been babied forty years was comforting in a way.

It was thought at this point (1905) that the growth of the foot on the outward border, occasioned by the extended width of the shoe thereat, was a mistake, and a shoe was modeled which corrected this state of things, as well as further tendency thereto.

Then, in 1906, it became advisable to increase the size of heel. Also a distinct advantage was gained in extending the length of heel forward, nearer the middle of the foot.

At the outset, when the brace had been discarded, the sole of the right shoe for the shortened right leg was kept of the same thickness as the other shoe sole, it being deemed best that the patient should use his weak ankle, and all the joints of that side of the body with the utmost freedom. The present shoe, however (December, 1906,) is provided with a sole sufficient in thickness (both inside and outside the upper) to bring the legs to an equal length. The result is admirable. The wearer is saved much fatigue incident to the constant twist of the leg in walking, otherwise a necessity, in view of the slightly shortened right leg.

There has been constant modification of the form of shoe, and the model has been greatly changed during the five years of treatment. Of course, the shoes have been constructed to follow, as well as anticipate the modified shape of foot in its evolution.

In this study we have less to do with the cause of the myelitis than with the status of the patient supporting it. The great difficulty lies in estimating the resistance and reactive power of the nervous system. Translating this condition into terms of Homœopathy, we must place a certain valuation upon the biological or vital assets of the patient.

The mother of this gentleman died of nephritis dating from his birth. All other information concerning his attack is practically negative, as far as integral cause is concerned. But even the history under our present consideration may be said

to throw some light upon the case. It is one that has richly rewarded study, and fully responded to most efforts toward radical betterment. The present condition is one of excellent health. The man is able to give full attention to his professional duties, and adapt himself to numerous social demands and personal resources. He has full command of himself in thought and action, and, in fact, possesses a self-control that comes to most only after long culture and appreciation of personal limitations, physical or other.

There may never cease to be for him the necessity of special care against excessive physical expenditure, but with due regard for this contingency, his reserves will meet every demand as it arises.

Remedies for such a nervous system and its functions must be critically selected. Some measure of strain incident to walking is constant. It can be minimized by the homœopathic remedy that covers all the symptoms of the patient. As a rule the most deeply acting constitutional remedies have best repaid study and employment. *Calcarea*, *Natrum Mur.*, *Lycopodium*, *Psorinum*, have been indispensable. *Belladonna*, *Ignatia* and *Aconite* are equally important at times, if not as far-reaching in effect. *Thuja*, *Sulphur* or *Phosphorus* may be the simillimum at some crisis.

In this case an example is perhaps given of retrograde metamorphoses of *related* forces of the organism. To correct an established backward course, we must arrive by the analytical method at a comprehension of the vital totality. One phase of life must not be stimulated at the expense of another, but normal compensation may be secured by normal methods. There is often sufficient nerve capital to stand extraordinary strain if such capital is properly taken care of. The homœopathic prescription will take care of it. And the additional mental energy that will accrue, derived also from this prescription, will enable the patient to hang on bravely till the strain is over.

For this individual case I would summarize:

1. Inaction and inhibition mean death. They must be overcome; cellular nutrition must be provided.
2. Since function favors structural integrity, structure may be augmented by promoting function.
3. Passive exercise (massage) has a limited range of benefit, and is inferior to the active forms; therefore establish

and maintain voluntary action as a physiological necessity.

4. No structure possesses a measure of force, either demonstrated or latent, greater than its nervous control. Nourish and support the nervous supply by protecting the nervous system.
5. Determine the vital or biological force by the complex of symptoms. Study their totality.
6. Determine what is curable in disorder and what is curative in medicine—by investigating remedy provings.
7. Reduce the features of the case to terms of Homœopathy, and apply Homœopathy.

IF HOMŒOPATHY IS A SCIENCE.

BY

WILLIAM A. SEIBERT, A. M., M. D.

(Read before the Raue Medical Club, at Altoona, Pa.)

WE believe Homœopathy is a science. We believe the law of "Similia Similibus Curantur" is a scientific law. We are willing to be classed as members of the Homœopathic fraternity. We are so thoroughly convinced that we are willing to devote our lives to the application of this law to the healing of the sick, regardless of the (un)ethical, even taunting, disparagements that our friends, the enemy, seem to consider advisable to persist in preaching and practising. With absolute disinclination to enter into a controversy—science knows no controversy—let us persistently continue the elucidation and complete establishment of the truths underlying this law, and let us not be diverted from the real issue by so-called ethical theories, as of amalgamation, etc., especially while tainted with uncharitable and un-American advances however tempting. Again, let us not be entirely abstracted, as has been quite effectively the case during the past several decades, by an all-absorbing interest in such divertissements as Antisepticism, Bacteriology and the numerous philosophies and theories that spring up in

connection with the specialties in medicine and surgery, etc., etc. Not that their investigation and study should not be collateral necessities, but that our attention may not be so completely detracted from the study, investigation and incontrovertible elucidation of the axiomatic truths that underly our beautiful science of Homœopathy.

If Homœopathy is a science, the truth of this law must only be verified and confirmed by a critical scrutiny of any of its corollaries. The basis of Homœopathy—of the prescription and of the proving—is the symptom. A critical scrutiny of any symptom therefore must only verify the law. If Homœopathy is a science, we can investigate any symptom, or any part of any symptom, fearlessly, and defy contradiction; and incidentally do more towards the kind of amalgamation that we advocate than in any other way yet suggested.

Here let us pause while we proceed with a demonstration of such a nature. This paper is the third of a series of papers, intended for students and skeptical Homœopaths, read at various times during the past year, and published in *THE HAHNE-MANNIAN MONTHLY* of March and December, 1906. We based the subject matter of the series of papers upon the one symptom, the Aconite Cough. We desire, in this paper, to consider the many authors, with malice to none, and only inquiring as each and every student has a perfect right to do in investigating scientific truths, and only criticising as each and every professing homœopath ought to do, to confirm or refute the scientific accuracy of each and every statement made. And if Homœopathy is a science she will, in every instance, survive victoriously, even though so-called authors have suffered corrections.

We think that we confirmed the long-established fact that Homœopathy is a science, in every sense of the word, in our former papers, and in this paper the students' attention shall be absorbed in the establishing of the *authenticity of the facts* which were there analyzed, classified and co-ordinated. This done satisfactorily, how can the student any longer be confused or remain skeptical, and if Homœopathy is a science this can and must be done.

Following the former logical method, so that our logic may be clear as possible, we shall consider the Cough of Aconite in its analyzed form:

1. The Character of the Cough;
2. The Exciting Cause and Its Location;
3. Conditions Accompanying and Following the Cough;
4. Conditions of Aggravation and Amelioration.

I. CHARACTER OF THE COUGH.

a. *Materia Medica Pura* :

Tussiculation;
 Short cough;
 Cough;
 Severe cough;
 Clearing his throat;
 Short cough (*kechekeh*);
 Hæmoptysis;
 Dry cough (*GREDDING*).

All but the last symptom Hahnemann observed in provings himself. To show the scientific accuracy of Hahnemann, he not only authenticates the last symptom, "dry cough," quoting it from *Greding*, but in a foot note adds that "the patient had had this cough previously." Who is there that dares dispute the scientific accuracy of these observations? They have never been, never will be, and never can be controverted, each and all of them. We may add to these symptoms by additional provings, we may interpret the language employed and elucidate the thought expressed, we may theorize about their causation, but these are authentic scientific facts that will endure to the end of time, and if Homœopathy is a science these various characters of cough will positively be cured when presenting themselves in the sick, provided the totality of symptoms tally. Now, what can we say in critically examining the text before us? It shall be done only as any student has a right to do and can do easily. "Tussiculation is a word not found in any English dictionary that we have had access to. We criticise the translator, Dr. Dudgeon, for not clearly translating. We suppose it means "tickling cough." There may be no exact English autonym, but the word is coined probably, and should have been commented upon to satisfy the stupidity of some of us. These same remarks apply to "*kechekeh*," parenthesized after "dry cough." The word may be onomatopoeitical for a sneezing or hacking cough, and if our object were a complete study of the Aconite Cough, it would behoove us to leave no stone unturned to learn precisely what Hahnemann

meant. Our object, however, has been to outline a method of study, and these intricacies appear opportunely to illustrate the point that if Homœopathy is a science these ambiguous and vague terms must be clearly and concisely defined so that the precise thought in Hahnemann's mind is transmitted to us. Until such elucidation these symptoms are not a part of pure Homœopathy. The scientific and discriminating accuracy of Hahnemann's mind is again demonstrated in symptom 266: "He (a habitual smoker) cannot smoke, without constantly clearing his throat and coughing, either because the epiglottis allows the smoke to penetrate the windpipe or because the larynx has become too sensitive (after 6 hours)." Here "clearing of the throat" and "coughing" are distinguished, both occurring. Furthermore, he explains that it is "either because the epiglottis allows the smoke to penetrate the windpipe, or because the larynx has become too sensitive," thus clearly establishing that he means what we call "hemming" rather than the other half-coughs that we know as "hawking" and "hacking." We are learning therefore from our study of Hahnemann's *Materia Medica Pura* the lesson of discriminating accuracy, and authenticity of every symptom, and, if Homœopathy is a science, every symptom and observation must respond to these scientific tests. Who can gainsay this?

b. Allen's Encyclopedia of Pure *Materia Medica*:

Hahnemann's *Materia Medica Pura* includes, contrary to the opinion of some of us, also a few symptoms that were observed in patients; but the greatest care was observed that such patients "were the subjects of chronic diseases whose morbid symptoms were well known and were not confounded with the new effects caused by the medicines taken." Hahnemann in his preface said: "These are not altogether valueless; at all events, they serve occasionally to confirm similar or identical symptoms that may have appeared in pure experiments on the healthy." We make this quotation because we believe it to be the entering wedge of a tremendously abused license: abused to such an extent that many of our present unreliable so-called clinical symptoms are permitted to enter into the warp and woof of our greatly confused mass of the present day *Materia Medica*. Every symptom of every kind in the *Materia Medica Pura*, be it observed, is authenticated.

Allen's Encyclopedia is supposed to record symptoms of the "positive effects of drugs upon the healthy human organism," and he does it in the same careful scientific manner of authenticating each symptom. He also admits cautiously symptoms observed in the sick after the administration of the drug, but he also reserves the right to add a very few symptoms which have never "been observed as effects of drug action, but which have been so repeatedly verified clinically that they clearly indicate the remedy." The wedge of importance, so cautiously introduced by Hahnemann himself, has been given an additional entering blow by Allen, and still another very dangerous impetus by simply marking the latter class with a small cipher and no further mark of authenticity, making it necessary to accredit these all, more or less unjustly, to Allen himself, quite unintentionally we do believe. Before going further we wish to check any growing opinion that our personal valuation of the clinical symptom is derogatory. Far from it! Per contra, we believe in the inestimable importance of the clinical symptoms in therapeutics. We believe they furnish us the largest proportion of the peculiar kind of symptoms that lead us to the certain selection of the *simillimum*. A corollary is often more important than the original proposition. But, if Homœopathy is a science, we claim, proclaim, and shall forever fight for the separate classification of all such symptoms, and most especially for their individual authentication always.

Proving the very great care of Allen, in the compilation of the ever-wonderful Encyclopedia, a monument more lasting than granite, and that he adopted the same caution so eminently displayed by Hahnemann in the *Materia Medica Pura*, we find few additions to our previous analysis of the Character of the Aconite Cough, even though his compilation included all of the very valuable provings up to April, 1879. He translates instead of "tussiculation," in symptom 266, "hacking," and omits entirely the parenthetic "kechekeh" in symptom 267. Instead of Dudgeon's translation of "clearing the throat" in 266, Allen more accurately translates it as "hemming." The additions Allen made were mainly those elicited by the noble band of Austrian provers. They are:

Hacking;
Hoarse;
Uncontrollable;

Loose, with viscous mucous expectoration;

Loud;

Distressing;

With peculiar dull tone.

The "hacking" cough is probably the same as the "short" (kechekeh) of the *Materia Medica Pura*. The "uncontrollable" may be the "severe" or the "frequent" cough of the *Materia Medica Pura*. The "distressing" cough is such an ambiguous character that it is valueless without further commendation.

The critical study of the Character of the Aconite Cough at this point, however, brings us face to face with another most important matter leading to ambiguity and confusion. We refer to synonyms, e. g., the severe cough, the forcible, uncontrollable, violent, hard, the racking cough. Every one of these symptoms is supposed to express the provers' precise symptom, and even synonymms are not precisely identical, so that substitutions and the various different interpretations made by the many *Materia Medica* authors dare only be indulged in by expert students of language as well as of *Materia Medica*, or our science of Homœopathy suffers correspondingly. The greatest work now before the science of Homœopathy seems to us to be, not so much the addition of new provings as the critical study and analysis of the unwieldy mass already accumulated. The weeding out, if any "weeding" is to be done, of all ambiguous terms, and the clear definitions of every accepted symptom.

After this study of the character of all coughs enumerated in Allen's Encyclopedia, the next step in our study is, logically, an examination of the provings recorded in

c. A Cyclopædia of Drug Pathogenesis.

This presumes to revise Allen's Encyclopedia. It is written in interesting narrative form. The best that can be said of any *Materia Medica* can be said of it—that it is scientifically accurate, in that it authenticates everything it narrates. Being narrative, however, its use is limited and discouraging to the practitioner as a reference book, but as a help to establish the scientific claims of Homœopathy, of the same inestimable value that the day-books of our original medicines will be, if ever accessible. It is noteworthy that this work, like Allen's Encyclopedia, accepts *Materia Medica Pura* in toto, the revision being applied to Allen's Encyclopedia particularly. The scientific nature of this work did no harm either when one considers it

in the light of better classification of symptoms according to their accuracy and liability. Many symptoms of Allen were thus placed into a distinct class, as needing further observation, investigation and verification, but their absolute elimination we do believe to have been "over-scientification," if you will pardon the new word. To illustrate my meaning, let us examine the Repertory of the Cyclopædia of Drug Pathogenesis first. There all coughs must be either—a. Simple; b. With Expectoration; c. Violent; or d. To Vomiting. In an explanatory footnote under "Simple Cough" is this—"This includes 'cough' when so given without specification; and also 'dry cough,' of 'hacking,' 'short' or 'tickling' character—such being the kind of cough most frequently developed by provings." Similarly in a footnote under "c.—Violent" cough is this: "Including 'spasmodic,' 'convulsive' and 'fatiguing.'" By "over-scientification" we mean this method of classifying and bringing into prominence the common symptoms, which we have learned are least useful, and if not ignoring, at least diverting the attention of students from the very marrow of Homœopathy, the fine distinctions that go to make up the "peculiar" symptoms, by which we do believe the best selection of remedy, and the best cures are made. If Homœopathy is a science this criticism cannot be controverted, and since Homœopathy is a science we are happy that the Cyclopædia of Drug Pathogenesis does not and cannot wipe out the minutest detail of fact which it faithfully narrates in its four volumes. It, in fact, adds and authenticates the "clear ringing" cough to those we have already adduced, at the same time that it ignores only the few ambiguous coughs to which we have referred.

Similia Similibus Curentur. If Homœopathy is a science, the "similibus" must be pure *Materia Medica*, i. e., it either must already have been, or it must be possible to be produced in the healthy subject artificially by the remedy in question. The symptoms that have already been produced in the healthy subject are enumerated for our purpose in *Materia Medica Pura*, *Encyclopedia of Pure Materia Medica* and *Cyclopædia of Drug Pathogenesis*; but this is not an all-comprehensive record. Get them anywhere, but be very certain of their authenticity, which requirement is absolutely necessary if Homœopathy is a science, and it is the important plea of this paper, as it was also in the presidential address before the State Society at its meeting in this city in 1905. What shall be said of the

millions of symptoms that have not yet been produced upon the healthy, and yet positively can be, if provings were continued sufficiently far, if Homœopathy is a science. It is right here that we find the bone of contention between the two schools, as well as between the factions of our own school. If it were possible to produce every symptom that could possibly be produced under any and all conditions, the law of cure would become a mathematical accuracy, and the two schools of practice would at once merge. This, of course, is impossible, as it is to carry a mathematical progression to completion, to prove any rule in mathematics by hoping to exhaust illustration, or to prove that the law of gravitation is true by an enumeration of every possible instance. The good Lord has endowed us with reasoning powers, however, and this process lies at the bottom of all science. If we had no power of reasoning, and if we could deal only with individual existence, we could make no classifications or comparisons, and no amount of diligence could ever carry us beyond the mere portals of knowledge. The falling apple awoke this power in Newton, the swinging lamp in the baptistry at Pisa aroused it in Galileo, the fever-producing power of cinchona bark excited it in Hahnemann, it seems to require a falling axe to make an impression on it at times in our age.

The myriad symptoms, as yet unproduced because of the finiteness of man, gives the imagination any amount of sway, we admit, but we all agree that there are such: indeed, we have learned that the provers' symptoms, in the main, are only the "common symptoms," and not so valuable for selecting a remedy as are certain "peculiar" symptoms not so commonly observed, by which we make our differentiations, prescriptions and cures. The greatest mass, therefore, of "peculiar" symptoms is as yet unproduced, but they must be accumulated only by a careful employment of the faculties of observation and reasoning, never by the imagination, and then to be accepted as corroborative and as forming a distinct class, and, above all, always authenticated, if Homœopathy is a science. These so-called clinical or "cured" symptoms form the basis of Hering's Guiding Symptoms, which Hering says, in his Preface, is "principally a collection of cured symptoms" and therefore a "Compliment to all other works on our Materia Medica." Hering, unjustly, will be blamed for inaccuracies, as he will also be credited with the many valuable symptoms that he has thus

compiled for our *Materia Medica*, because he assumes the authenticity of all these symptoms enumerated in his ten volumes. Knowing the confidence of our foremost homœopaths in Hering's ability and reliability to compile such a mass of symptoms we accept it in an important class by itself. He compliments the Character of the Aconite Cough, as studied in *Materia Medica Pura*, Allen's *Encyclopedia*, and *Cyclopædia of Drug Pathogenesis*, with

Whistling cough;
Hoarse cough;
Hollow cough;
Barking cough;
Spasmodic cough;
Choking cough;
Convulsive cough;
Rough cough;
Croaking cough;
Uncontrollable cough;
Croupy cough;
Loud cough;
Panting cough;

And now we have arrived at the point where students become skeptical, and discard the study of the Homœopathic *Materia Medica* as a farce. They are justified in the complaint that Aconite is therefore good for any and every kind of cough possible, and that to try to learn it is a total waste of time and more impossible than to learn the *Encyclopedia*. Our object has been accomplished, however, for it has been the purpose to demonstrate this *reductio ad absurdum*, and to discourage the customary method of studying our *Materia Medica*. The same result will be attained, whatever symptom be analyzed and studied. The fact is that Aconite will cure almost any kind of cough, when the individuality or "genius" of Aconite can be recognized in the case. We do not prescribe for coughs; we prescribe for individuals having a cough, be it remembered. To learn the "genius" of the remedy should be the object of *Materia Medica* study, and a list of the authentic records of these innumerable possibilities to refer to, comprises the *Materia Medica armamentarium*.

The confusion of the students is made complete by the many *Materia Medica* text books, that justly deserve the reputation of all differing, if not disagreeing, each assuming the right of

authorship. Differences of opinion we may condone, but if Homœopathy is a science the authenticity of each and every symptom must be maintained unchanged in the slightest degree.

We have, up to this point, made, we trust, a scientific study of the three representative records of provings, viz., *Materia Medica Pura*, *Encyclopedia of Pure Materia Medica* and *Cyclopædia of Drug Pathogenesis*—and of one representative record of simple “cured” symptoms, viz., *Hering’s Guiding Symptoms*. Our purpose has not been to accumulate all the material gatherable of both these varieties of symptoms; the purpose of this paper has been primarily to outline a method of scientifically studying *Materia Medica*, and to hint at a method of purifying our *Materia Medica*. Consequently your time will not be encroached upon at this time by reciting a student’s criticisms of each of the hundred or more authors of *Materia Medica* before us; but these criticisms and questions will come up to every student who has been accustomed to the study of the sciences. The first fact that will invariably confront such a student will be that literally no two of these authors agree, and if Homœopathy is a science it will be necessary to become reconciled to these inconsistencies by scientific explanations for each error of commission and omission. If Homœopathy will ever take its place among the sciences the details of the work we have outlined must be undertaken at some time. The result must not be a matter of opinion. We must be able to say about the conclusions, “Who dare deny?”

The temptation to review each of these one hundred authors with reference to the one little Character of the Aconite Cough is very great, because they all do differ, and many are so replete with what seems to a student to be inexcusable errors of commission and omission. We may not be able to refrain from doing so in a future paper, but our immediate burden is the method that can be followed for the purpose of establishing or confirming the authenticity of every symptom. We believe that this work properly pursued will not only net the best result to the student in acquiring a knowledge—not of the Aconite Cough—but of *Materia Medica*, but it will also be a long step towards making the fact incontrovertible that Homœopathy is a science and that the Homœopathic *Materia Medica* is the only *Materia Medica* based on scientific principles, unchangeable and unchallengeable.

RECAPITULATION.

The Cough of Aconite the selected symptom;

Analyze into—a. Character of Cough;

b. Exciting Cause and its Location;

c. Conditions of Aggravation and Amelioration;

d. Conditions Accompanying and Following the Cough.

Consider these classes seriatim:

a. Character of Cough:

Consider the authors in chronological order:

1. Hahnemann—*Materia Medica Pura*:

Tussiculation;

Short cough;

Severe cough, etc.

2. Bœnninghausen—*Characteristics*:

Clear ringing cough;

Whistling cough, etc., etc.

Whenever a new symptom is encountered, it is placed under the authority. The repetition of an old symptom is accredited in numbered columns running down the page, to the right of the original authority. *Materia Medica Pura* is No. 1, Bœnninghausen's *Characteristics* is No. 2, Bœnninghausen's *Repertory* is No. 3, Bœnninghausen's *Pocket Book* is No. 4, etc., etc.

Sheets of paper, eighteen or more inches square, already ruled, quadrille ruling, is specially adapted for this purpose.

Completed, it will enumerate every author, note agreements, disagreements and differences, and give a tabulated illustration of the result.

The Character of the Cough thus disposed of, we must take b. Exciting Cause and Location in the same manner, then c. Conditions of Aggravation and Amelioration, and d. Conditions Accompanying and Following the Cough, before we have exhausted the one symptom—The Aconite Cough.

I am not a mind reader, but I am reasonably certain that the thought uppermost in your minds is the stupendous magnitude of the work. Granted! and it is growing more stupendous with every new work on *Materia Medica* published. That such a work is not impossible I can personally assure you, and any group of men that undertake this work to the completion of even a limited number of symptoms will earn the everlast-

ing gratitude of a suffering science, do more good than a fresh body of self-sacrificing provers that can never reduplicate the never-dying accomplishments of our former colleges of provers, whatever accurate records they furnish us with, and help to place Homœopathy upon the scientific basis that she undoubtedly owns.

ANALYTIC STUDY OF NATRUM MURIATICUM.

BY

EDUARDO FORNIAS, M. D., PHILADELPHIA, PA.

NUTRITION.—The results observed under the prolonged use of *NATRUM MURIATICUM*, as an article of diet, do corroborate many of the symptoms comprised in the pathogenesis of this important remedy. *Disorganization of the blood, with impairment of the general nutrition*, is undoubtedly the origin of its dystrophic phenomena. *Anæmia*, with its trail of digestive, nervous and cardio-vascular symptoms, and *Scurvy*, with its progressive adynamia, gingival alterations and multiple hemorrhages, represent well two types of diseases embracing the leading effects of *Natrum Muriaticum* on the healthy organism. In both pathological conditions, it meets well the *qualitative and quantitative alterations of the blood*. Beside the *anæmic and scorbutic conditions* mentioned, other degenerative changes are prone to occur in the tissues and vessels, thereby increasing the liability, not only to hemorrhage, but to effusions. In fact, the *hematolytic effects* of this drug comprise anæmia, oligamia, hydremia, hypoglobulia, hypoalbuminose, clorosis, œdema, effusions and bleeding from the gums (*CARBO VEG.*, *MERC.*, *PHOSPH.*). The *wan, pasty face, the dry, dirty-looking, withered skin and the general emaciation* are the result of dehydration of the tissues. Other phenomena indicative of *imperfect nutrition* are: labial herpes, scabs in the nose, vesicles and ulcers in the mouth, mapped tongue, loose teeth, crusted and humid tetter, deep cracks in the skin, hang-nails, warts, falling of the hair and varices; and to this we should add dimness of sight and fiery spots before the eyes (*scintillating scotoma*).

SECRETION.—As there is marked *dehydration of the tissues*, we naturally have a *dry, withered skin*, and probably from the

same cause, there is a tendency to *dryness or erosion of the mucous membranes*. At the edges of the *mucous mebranes* there is more or less *smarting and burning* (ALUM., GRAPH.). In general, the *secretions are acrid and scanty* (ARSENIC). In the eyes, acrid, excoriating tears, with itching and burning, making the lids red and sore. In the nose, the mucosa may secrete a clear mucus, but usually the discharge is fluent, acrid, producing soreness and scabs, or alternating with stoppage. In the posterior nares; there is dryness during the day, but hawking of thick mucus in the morning, on awaking. The lips are dry and cracked, with rhagades or bleeding scabs. The mouth is dry and ulcerated, with humid sores in the angles, or there is profuse salivation, even bloody saliva. The tongue is dry, mapped (KALI. BICH., TARAX., RHUS TOX., ARSENIC) or full of vesicles, with smarting and burning when touched by food. The gums are swollen, sensitive and bleed easily. The throat looks glazed and feels very dry, with sensation of a splinter (NITRIC ACID, ARGENT NIT., HEPAR.). Unquenchable thirst from dehydration of the tissues. Water-brash and heart-burn (CARBO VEG.) Vomiting of food and bile. Watery, excoriating, or green, bloody diarrhœa. Constipation, from inertia, due to dryness of intestinal mucosa. Stools, hard, dry, difficult, they crumble on passing the anus (MAG. MUR.). Dryness and smarting in the rectum and anus. Anus dry, torn, bleeding, smarting, and burning after stool, from lack of secretion. Hemorrhoidal moisture oozes from the anus (CARBO VEG.). Polyuria, with violent thirst. Involuntary urination, when coughing (CAUST.), laughing, or walking. Urine pale, with brick-dust sediment (LYCOP., APIS, SEPIA.), or dark like coffee (COLCH., HELLEB.). Hæmaturia. Painful coitus, from dryness of vagina. Menses delay and grow more and more scanty (PULS., SULPH.), or too early and profuse (CARBO. VEG., CALC CARB.) Leucorrhœa acrid (CARBO. VEG., KREOS.) greenish, especially when walking (Bovista). Larynx dry, with hoarseness and soreness (PHOSPH.) Dry cough after going to bed, spasmodic, suffocating, expectoration mostly in the morning; from tickling in the throat (PHOSPH., LACHES., RUMEX) and mucous râles (HEPAR., KALI BICH., SILICA., SULPH., PULS.). Debilitating profuse sour sweats. (CHINA., SAMBUCUS. BRYON., MERCURIUS). The least exertion brings on easy sweating.

CIRCULATION.—NATRUM MURIATICUM also excites the cir-

culation. The least exertion produces *throbbing all over the body*, and if the heart is implicated, every effort or strain occasions *violent palpitations*; the same occurs when the patient lies on the left side. *Decubitus* can only be tolerated on the back. Sometimes there is a marked *fluttering motion of the heart*; at other times *irregular intermissions of both, cardiac and radial pulsations*, which are always worse while lying on the left side. The *pulse intermits* every third beat, or may be full and slow, or weak and rapid. The *palpitations* are attended by *anxiety and morning headache*, but principally by *dejection and a tearful condition*, similar to that of PULSATILLA, but unlike this drug, the patient rejects consolation; all it wants is to rest and be left alone. The *cardiac excitement* occurs during motion and exertion; when lying on the left side, on going to sleep, and on awaking. There is a *feeling of coldness in the heart*, comparable with that of SEPIA., LILIUM and PETROLEUM. *Congestion* towards the head, chest and stomach, with coldness of the legs.

RESPIRATION.—*Pari passu* with the circulation goes *respiration*: There is *short breath*, when walking fast; *tightness of the chest*, at manual labor, relieved in the open air (PULS.); and *wheezing when breathing*, in the evening in bed. There is also *anxious oppressed breathing* (ARS.), as well as *attacks of suffocation*. NATRUM MURIATICUM affects the *respiratory mucosa*, creating *catarrhal affections* characterized by *hypersecretion*, with loss of smell and taste (PULS.); *paroxysmal sneezing*, scabs and scurf in the nose, *accumulation of mucus in the larynx* (in the morning) moist cough and *hawking of mucus*. Other *catarrhal manifestations* of its action on the *respiratory tract* are: *Dryness*, with *tickling in the throat or pit of the stomach*, hoarseness, *feeling of a plug in the throat* (BELL., HEPAR.); *dry cough*, rattling in the chest; *bursting headache* (BRYONIA), *spurting of urine* (CAUST.), and *stitches in the liver* (BRYONIA, MERC., HEPAR.) The *cough* indicative of NATRUM MUR. is usually *dry, with rare or scanty expectoration*, shortness of breath, tightness of the chest and stitches in the chest and sides; or it is *spasmodic, suffocating*, in the evening in bed, or *paroxysmal, violent*, causing nausea and vomiting of the ingesta (DROSERA). When deeper tissues are involved, there is *morning, tickling cough*, excited by walking or by deep inspiration; with *mucous râles*, but scanty and badly-tasting expectoration; or a *long-continued short cough*,

with rattling in the chest, and some expectoration, or with expectoration, day and night; or *choking cough*, with expectoration of bloody mucus; or *purulent expectoration*, with one turn of cough. *Phthisis pulmonalis purulenta*, with dorsal decubitus, short breath, cardiac excitement, tissing cough, and vomiting of the ingesta. The *cough of Natrum Mur.* is provoked or aggravated by empty swallowing, talking, walking and taking a deep breath, and, as a rule, worse at night. With the *oppressive respiration*, there is *stitching pain in the chest and sides*, and especially so during a long inspiration.

DIGESTION.—NATRUM MURIATICUM irritates the *mucous lining of the digestive canal*, and produces acidity, fermentation, incarceration of flatulency, abdominal distention (LYCOP.), rumbling, gurgling, as well as excessive emission of flatus (CARBO VEG.). The *gastro-enteric disorder* is usually attended by dull headache, sour taste, nausea, regurgitation of food, vomiting of food and bile, heart-burn and fever-blisters. The *bowels are markedly affected*, there is either inertia from dryness, or activity from irritation. In the first instance the *efforts to stool are difficult* and the dry feces crumble on passing the anus (AMM. MUR., MAGN. MUR.), which often becomes fissured, burns and bleeds; in the second instance, there is a *watery, excoriating diarrhæa* (PETROL.), with smarting and pulsation in the rectum, during and after stool (ARSENIC., CANTHAR., IRIS.), and often causing a *herpetic eruption* about the anus. It also excites a characteristic *craving for salt* (CARBO. VEG.), and an equally characteristic *aversion to bread* (LYCOP.). The *great irritation* caused by this drug in the mucous membranes of the digestive organs is chiefly expressed, first by a *constant, intense thirst, heartburn, or sour, irritating eructation*, and second, by *tettery, smarting rashes* at the various outlets of the body. The *appetite* is variable, either entirely lost or excessive, especially at supper, even amounting to *bulimia*. There is *longing for bitter food and liquids*, principally for milk which disagrees, and the *taste* is flat, bitter, sour or putrid. In few drugs of our *Materia Medica* are to be found so many *sensory phenomena* accompanying the digestive complaints. There is *pressure in the pit of the stomach*, as from something hard lodging there: *throbbing, jerking and claving* in the epigastrium; *cramp*, with nausea, relieved by tightening the clothes; bruised feeling in the pit of the stomach when pressing upon it; *aching, drawing and stitches in the region*

of the liver; flatulent colic in the morning, on waking, and constant uneasiness and dull pain in the abdomen, with periodical paroxysms of short pressure or pinching; feeling of repletion, shortness of breath and epigastric pulsations. The digestive troubles of NATRUM MUR. may be attended by an irritable mood (NUX VOM.), but principally by *dejection*, and this is particularly the case with *constipation* (LYCOP.).

SENSATION.—In the preceding group I have called attention to the many sensations accompanying digestive troubles, and I shall give now some of the most important indications corresponding to this division of my work, and found elsewhere. The most characteristic disorders of sensation, found under NATRUM MURIATICUM, comprise: *Sensation of emptiness in the head* (COCCUL. SEPIA); *of coldness* (VERAT), *or burning in the vertex* (SULPH., CALC. C., GRAPH.); *bursting, hammering pain in the head* (BRYON) *and pressing from side to side*, as if the head were in a vise (ÆTHUSA); *darting in the head*, especially above the eyes, through the head; *heaviness weight in occiput*; *painful stiffness of the neck* (BELL., KALI CARB.) The headaches of this drug are worse in the morning (NUX VOM.) when waking; from *mental exertion* (NUX VOM., GELS.); moving the head or eyes; from warmth, and are relieved by lying down or sitting still or from sweating. In the muscles of the eyes, there is a drawing, stiff sensation on moving the eyes. Hyperesthesia of the retina. The spine is also markedly affected; there is *pain in the small of the back*, as if bruised, better by lying on something hard (RHUS. TOX.); *pain in the back*, as if broken, principally in the caudal end of the spine (KALI CARB.); cutting, stinging and strong pulsations in the small of the back; weariness and a pressing tension and *drawing in the back* (KALI CARB.); pressure, stiffness and torpor in the neck. *Pain in the hip*, as if wrenched. Drawing pain in the thighs, knees and legs. Lame feeling in the joints. Painful contraction of the hamstrings, tension in the bends of the limbs. Paralytic weakness of the arms and legs. *Great heaviness of the legs and feet*. In other regions we have: *Feeling of a hair on the tongue* (SILICA on the forepart of tongue; KALI BICH. on the back part of the tongue and velum). *Sensation of a splinter* (ARG. NIT., HEPAR., NIT. ACID, IGNAT.), of a plug in the throat (BELL., HEPAR., MERC.). *Constant sensation of thirst* (ARS.). *Stitches in the region of the liver* (BRYO.). *Stitches in the chest* (BRYON., KALI CARB.) Burn-

ing in the rectum during and after stool (SULPH.) *Burning in the intestine with heat in the stomach. Pressing, bearing down in the genitals*, must sit down to prevent prolapsus (BELLAD., SEPIA., NIT. ACID). *Sensations of drawing, lameness, of sprain, of a bruise, of numbness and burning* (RHUS., APIS) in various parts of the body, principally joints. *Chilliness predominates* both internally and externally. *Chills, with or without thirst. Continuous chilliness*, from morning till noon, *with thirst. Continuous heat* in the afternoon, with violent thirst and headache, then perspiration, followed by gradual relief. *Heat, with hammering headache and drowsiness*. Heat of stove unbearable (ARS. Opposite). Itching, and pricking in the skin.

MOTILITY.—The *motor nerves* are not less affected than the *sensory*. There is *great weakness and relaxation* from the least exertion (ARSENIC., CARBO VEG.), and consequently there is also *great disinclination to move or walk*, especially after rising. The *morning rising* is usually attended with *extreme heaviness and indolence; the limbs feel weak, heavy, numb*, as if paralyzed, sometimes as if bruised, particularly in the morning. *On moving*, the stiff joints crack, or *the limbs are restless, fidgety*, they have to be moved constantly. The *muscles and limbs twitch and jerk* (ZINCUM) and perhaps the most characteristic disorder of motion is the *tensive shortening or painful contraction of the hamstrings*, which often compels the patient to jump high, regardless of things around (CHOREA. SCIATICA). *Hysterical debility*; she is so weak in the morning in bed that no amount of persuasion urges her to get up or even move; she wishes to be left alone and rest. In *anæmic conditions* he is so weak and prostrated that he does not want to move. There is *frequent yawning and stretching*, but uncontrollable dislike to motion. *Muscular asthenopia*. Drawing stiff sensation in the muscles of the eye when moving them. Lids heavy when using them. *Pupillary contraction*. Spasmodic closure of the lids. *Amblyopia*; dimness of vision and gauze before the eyes; scintillating scotoma; letters run together when reading. Incipient amaurosis. Uterine cramps. Prolapsus uteri. *Bearing down* as if the menses were coming, with leucorrhœa.

REPRODUCTION.—NATRUM MURIATICUM exerts a remarkable influence on the *organs of reproduction*. In the MALE it causes relaxation, nocturnal pollution, imperfect erections and

ejaculatory weakness. The *debility and seminal losses* are attended by outbursts of irritation or lascivious dreams, backache, weakness of the legs, *fatigue and melancholic depression*. Besides the ineffectual coition and impotence, there is *excessive excitement of the genitals and exaltation of fantasy*. Gleet-like discharge of clear mucus. Itching and crawling at the *corona glandis*. *Balonorrhæa or Blenorrhæa*. In the FEMALE, the *menses are delayed and scanty* (PULS.) or too soon and profuse (SEPIA). *She is very sad and gloomy*, during the menses, with palpitations and morning headache. *Headache*, or nausea and vomiting, before, during and after the menses. Abdominal cramps during the menses. *Before menstruation* irritable and expressive of sadness. *Bearing down*, must sit down to prevent prolapsus (BELL., SEPIA), with *aching in the back*. *Leucorrhæa*, *acid*, greenish, especially when walking (BOVISTA., KREOS.); with yellow countenance (SEPIA). Itching of the pudenda (SEPIA). *Aversion to coitus* (PLATINA). *Sterility*, with a too early and profuse menstruation.

MIND.—In the *mental province* we find NATRUM MURIATICUM producing, both, a *state of depression* and a *state of irritability*, but its most characteristic effect consists in a defect of expansion of the general activity, a *melancholic condition*, with a weeping mood, which admits of no sympathy. In fact, *consolation always aggravates the state of despondency*, and the unwelcome encouragement often causes palpitations and intermittent pulse. *Ill-humor* is expressed by an irritability, often amounting to anger, and quite in contrast with the dejection. So out of humor is the patient, so sulky, that the least contradiction or trifles angers him extremely (BRYON., CHAM.). *Hurriedness* is another mental feature of this drug, and it is irresistible or impulsive, like all morbid acts which are not reflex. The *hasty impulses* are attended with *anxiety and fluttering of the heart*. Both, *the intellect and the feelings are markedly disordered*. There is *anxious care and apprehension for the future*; sometimes attacks of *discouragement and despair*, at other times of *anxiety with palpitations*, and of *erroneous ideas of culpability*. The patient is sometimes grave, indifferent, reserved, hypochondriac, tired of life, but principally he is a *self-tormentor*, dwelling continually on past, unpleasant events, a *persistent struggle of the mind*, a *delusive conception*, to which it holds tenaciously in spite of accumulative proofs as to its falsity. In the mental disorder enters also

the tendency to start (KALI CARB., IGNATIA), as well as the weakness of the will and of the memory, for, on the one hand, there is *indecision and slow reflexion*, especially during intellectual work, and, on the other, the memory is so debilitated as to border on stupidity; there is *lack of ideas* and utters empty words without meaning; the patient is so *absent-minded* that he continually loses the lines of thought; he does not know what he must say; he easily makes mistakes in talking and writing (LYCOP.), and often starts without forethought, or knowing where he is going, has *vertigo* when walking; everything turns in a circle when moving about.

CHARACTERISTICS.—Some of the leading characteristics of NATRUM MURIATICUM are found in its *modalities*. Most complaints appear or are renewed while lying down, especially at night, or in the morning, and are relieved when sitting up; sometimes, while lying on the back or on the right side (chest affections) or in the open air (PULS.) 10 A. M. is the usual hour of *aggravation*. The patient is also *worse* from writing, reading, *mental exertion*, looking fixedly at an object, in summer time, in the heat of the sun, and from talking, particularly the weakness. There is an *amelioration* of the digestive symptoms, *while fasting* and after eructations; of the pains and aches from profuse perspiration; of headache by keeping the head high, and of spinal pains *by lying on something hard* (RHUS TOX). In *cardio-vascular troubles*, there is inability to lie on either side on account of violent palpitation, only the *dorsal decubitis* is tolerated, and in *broncho-pulmonary affections*, an extreme aversion to be in the open air or to move. *Bad effects* from anger (BRYON.), abuse of quinine (PULS.), acid food and bread (LYCOP.) of heat in general (GLONO.), sea-air and sea-bathing (ARS.), and loss of animal fluids (CHINA., CALC. C., PHOS.) Other *important conditions* are: The liability to take cold (KALI CARB., CALC. C., HEPAR); the general pulsations on the least exertion; the loss of flesh, notwithstanding the good appetite; the spasmodic affections during the full moon; the tendency to start (KALI CARB.); the persistency of the *thirst and labial herpes*, and the *periodical character* of many attacks, vertigo, headache, neuralgia, malaria, etc. Many of the ailments in which NATRUM MUR. has proved curative are attended by *mental depression* (sadness, weeping, taciturnity), and the *rejection of all sympathy*, in fact, consolation always aggravates the patient; on the other

hand, *anxiety and apprehensions* are common expressions of *neurasthenic and asystolic conditions*. Among the *disorders of nerve-function* a belated sleep is characteristic. There is a great inclination to sleep in the daytime and total sleeplessness at night, or the patient keeps on yawning and stretching, is sleepy, but cannot sleep, till perhaps daybreak, and when he awakens complains of headache and is annoyed by general pulsations. The sleep may be disturbed by *vivid dreams*, principally of robbers, or by starts, talks, or tossing about.

RELATIONSHIP.—NATRUM MURIATICUM is an antidote of CHININUM. SULPH. and BEE-STING, but principally to ARGENTUM NITRICUM. It corrects the ill-effects of cauterization with NITRATE of SILVER. It follows well and is well preceded by APIS. MELIF.; to which also stands in an antidotal relation (LIPPE). Complementary to APIS., followed by SEPIA. SEPIA and NATRUM MUR. are complementary to each other in *psychical conditions*. Dr. Farrington places, both, ARGENTUM NITRICUM and APIS. as complementary to NATRUM MUR. The *abuse of salt* in food is antidoted by SPIR. NITR. DULC. and PHOSPHORUS. Hering recommends ARSENICUM for the bad effects of *sea-bathing*. *Excess of salt*, beyond the needs of the organism, is inimical to potentized NATRUM MUR. It is remarkable how employes in *salt-works* never get cholera, scarlet fever, influenza or colds. According to Guernsey, the remedies following well are: BRYONIA, CALC. C., PULS., RHUS., SEPIA., SULPH. He gives CAMPHOR as an antidote. In *scorbutic conditions* CARBO VEG. follows well NATRUM MUR. NATRUM MUR. does not answer well after MERCURIUS VIVUS and PSORINUM, which likewise do not follow well after it. In NATRUM MUR. the complaints are increased during a thunderstorm, while in RHODODENDRUM an approaching thunderstorm excites or exacerbates the complaints.

According to my observations and studies, a great relationship exists between the general action of NATRUM MUR. and that of KALI CARB., SEPIA., LYCOPODIUM and CALCARIA OST. They all alter the *blood-life and nutrition* and affect digestion, circulation and respiration in analogous manner. The *headache, backache and asthenopic symptoms* are similar, and similar also the symptoms of the *mind and disposition*. They all have more or less liability to take cold, belated and disturbed sleep, weak memory, difficult thinking, and errors of speech and writing.

Marked is also the analogy between NATRUM MUR. and CARBO VEG., chiefly found in the *alteration of the blood* and the *retrograde metamorphism*. In CARBO VEG., however, the tendency is to diarrhœa and there is hardly any emotional disturbance. Both are leading remedies in *scorbutic conditions*, as well as in *prolonged diseases, attended by great debility and prostration; in the anæmic, emaciated and cachectic, with low power of resistance, or in chronic gastric troubles*, characterized by acidity, fermentation and accumulation of flatus, and complicated with *hepatic disorder*.

Probably the most *lachrymose remedy* after PULSATILLA is NATRUM MUR. Both have many gastric symptoms in common and similar mental disturbance, but in PULSATILLA the disposition is yielding and mild, and the patient welcomes consolation, the contrary of NATRUM MUR.

(To be continued.)

NOTES ON MATERIA MEDICA.

BY

MALCOLM A. DOUGLASS, M. D., BALTIMORE, MD.

CEDRON.

PERIODICITY, *often clocklike*, is a characteristic of cedron. To emphasize this clocklike regularity of the recurrence of its symptoms, I will relate a case occurring in my own practice, several years ago.

The case was of a girl about twelve. Every Saturday evening, just at six o'clock, she had a convulsion. These convulsive attacks had been coming on for about three years, and on strict inquiry I found that previous to the appearance of the convulsions she had suffered from "chills" for several months. She had been treated unsuccessfully by many physicians, and others, for both the convulsions and the previously occurring chills. In trying to find a remedy to cure the little patient, I learned that she had a chill every Saturday at six o'clock in the afternoon. During one of her "chills" a wandering gypsy woman came in and said she could cure those chills. She gath-

ered some plants and herbs, made a decoction and gave it to the child. She had no chill the following Saturday. The chill remained "cured," and in about three months she began to have these convulsions, which all means hitherto employed had failed to give any relief. I looked upon the case as one of *suppressed* ague, and solely on the periodicity of the symptoms gave her cedron in the 200x. The next Saturday, a little before six, I went to the house to watch things. Just at six o'clock *she had a hard chill*, which alarmed her parents very much, but which gratified me exceedingly. After the chill was over, I gave her placebo to take. I kept track of the case for over five years, and that was her last convulsion or chill.

Cedron is often found curative in acute malarial poisoning, with enlarged spleen and liver, general anæmia and dropsy. It has also cured puerperal convulsions, recurring at regular intervals, beginning with severe pains in the left temple, with albuminuria. Hysterical spasms recurring regularly night and morning. Recurring attacks of chorea in a woman after coition.

Shooting over left eye is another prominent symptom of cedron. Pain from temple to temple across eyes. *Ciliary neuralgia*. Neuralgia of the supraorbital nerve and also in the whole right side of the face, coming on every day, generally about 9 A. M., and lasting a few hours.

Numerous cures of chills and fever characterized by the regular recurrence of supraorbital neuralgia are reported cured, also many cases of supraorbital neuralgia without malarial symptoms. Severe pain in eyeball, with radiating pains all around eye, shooting into nose, causing flow of scalding water from eyes and nose, the pain in head across forehead caused a crazy feeling, coming suddenly after working on black.

Sudden acute pain in ball of right thumb, extending up arm to shoulder; 2d dil. cured like magic.

Sudden acute pain in ball of right foot caused her to drop to the floor; afterwards pain extended to above knee.

In zoster the radiating pains have been relieved.

Recurring chills, with left-sided headache, numbness of the limbs, etc.

In chills and fever the whole body feels numb with the headache.

CICUTA MACULATA.

Alkaloid.—Cicutina.

Physiological Action.—Many cases of poisoning from the root of this species have been reported, all showing, by the symptoms, that cicuta produces great hyperæmia of the brain and spinal cord.

The following case, reported by Dr. Bigelow, gives a good summary of the action of this drug: A boy had eaten certain tuberous roots, gathered in a recently ploughed field, supposing them to be artichokes, but which were identified as the roots of the water hemlock. His first symptom was a pain in the bowels urging him to an ineffectual attempt at stool, after which he vomited about a teacupful of what appeared to be the recently-masticated root, and immediately fell back into convulsions, which lasted off and on continuously until his death. The doctor found him in a profuse sweat and "convulsive agitations, consisting of tremors, violent contractions and distortions, with alternate and imperfect relaxations of the whole muscular system, astonishing mobility of the eyeballs and eyelids, with widely-dilated pupils, stridor dentium, trismus, frothing at the mouth and nose, mixed with blood, and occasionally violent and genuine epilepsy." The convulsive agitations were so powerful and incessant that the doctor could not examine the pulse with sufficient constancy to ascertain its character. At the post-mortem no inflammation was observed, the stomach was fully distended with flatus, and contained about three gills of a muciform and greenish fluid, such as had flowed from the mouth; this mass assumed a dark green color on standing.

The cicuta are most prominently convulsants, producing the most terrific convulsions, with loss of consciousness.

Allies. Oenanthe, conium, absinth., hydrocy. acid, cuprum.

Symptomatology. Generalities. Tetanus. Convulsions, with wonderful distortion of limbs, head turned backward, back bent as in opisthotonos; frightful distortions, with unconsciousness; spasms of all the muscles: spasms, with dark redness of face, blue lips and bloody froth from mouth. Epilepsy; with swelling of stomach, as from spasm of diaphragm. Hiccough, screaming, redness of face, trismus, unconsciousness and distortion of limbs. Weakness: after standing a short time, worse in knees and in muscles of back.

The above symptoms would make this drug prominent in

Convulsions from various causes, injuries, after opium, chorea-like, epileptiform, tetanic puerperal, from worms, from indigestion, *with insensibility* staring eyes, with jerking of eyeball, muscles of the face and whole body, face red, hot and sweaty; or with the convulsions violent opisthotonos, tetanic rigidity of the whole body, eyes fixed at one point, and frothing at the mouth, with spasmodic breathing; spasms brought on by the slightest jar, etc.

Among other recorded symptoms we find:

Delirium; singing, dancing grotesquely, shouting (hyos.). Weeping, moaning and howling. Excitement and apprehension about the future. Anxiety, much affected by sad stories. Stupefaction. Loss of ideas. Mental torpor. Unconsciousness.

Therapa.—Delirium, with funny gestures, red face, confounds the present with the past. Melancholia with indifference. Sadness and concussion of brain. Great apprehension; very mistrustful. Hallucinations, with convulsions after typhoid fever. Jerking of head. Vertigo, and reelings, and falling to the ground. In forehead, stupefying pain externally, worse at rest.

Therapa.—Vertigo, with gastritis, vomiting, with muscular spasms and tendency to convulsions. Sudden violent shocks through head and whole body, with jerking, premonitory of spasms. Suppurating eruptions and pustules larger than the head of a pin, which became confluent, with infiltration, etc. Basilar meningitis, with convulsions, many cases. Effects of concussion of the brain, especially weakness.

Eyes.—Staring. *Pupils dilated and insensible*; contracted, then dilated; sometimes contracted, sometimes dilated. Sensitiveness to light. When attempting to stand objects seem now to approach, now to recede. Objects seem double.

Flow of blood from ears. Difficult hearing. *Cicuta* is useful in

Hemorrhage from the ears in cerebral troubles. Deafness of old people, with sudden detonations in ears, especially on swallowing (compare conium).

Face.—Red; pale; and drawn; cadaverous paleness. Lock-jaw.

Whitish sore on margin of tongue, with pain on touch.

Therapa.—Eruptions about corners of the mouth, beginning like honey-colored crusts, with burning and itching, the crusts

extended to the chin, became thick and "fatty," sometimes with swollen glands.

Spasm of œsophagus from worms, the child cannot swallow, strangling on attempting to swallow.

Under "*Stomach*" we note: Longing for coal, he swallowed it. Thirst. Hiccough. Burning. Burning pressure. Throbbing in pit; which was raised up to the size of a fist.

Therapa.—Desire for unnatural things, like coal. Violent hiccoughs, with loud sound and with spasms of the chest.

In the *Abdomen* there was rumbling and roaring.

Diarrhœa: at 2 and 5 P. M., with irresistible desire to urinate. Involuntary micturition. Spurting of urine.

Want of breath. Oppressed respiration. Tightness in chest so that she could scarcely breathe. With these symptoms we would expect to find *cicuta* useful in spasms of pectoral muscles, sometimes with violent hiccough or with great difficulty in breathing. Palpitation, sometimes the heart felt as though it stopped beating. Spasms and cramps in muscles of the nape of neck and spasmodic drawing backward of head.

Back.—*Bent backward like an arch.* Pain on inner surface of scapulæ. Tearing, jerking in coccyx. Neuralgia of the coccyx during menstruation.

Spasmodic distortion of extremities; throwing himself to the distance of two feet. Trembling. Weakness of arms and legs, after slight exertion.

Jerking and sticking in arms, and in fingers. Nails blue. Jerking of legs. Trembling of one thigh. Refusal of legs to carry him and staggering.

Skin.—Elevations over face (and on hands); *with burning pain on touch*, afterwards confluent elevations on hands, even on balls of fingers, in which there is burning pain on touch, afterwards confluent. Red vesicle on right scapula, painful to touch.

Frequent waking from sleep, with general sweat every time, from which he, however, feels refreshed. Dreams vivid but unremembered; vivid, of the events of the previous day. Sweat on abdomen.

THE EAR AND THE GENERAL PRACTITIONER.

BY

ROYAL S. COPELAND, A. M., M. D., ANN ARBOR, MICH.

ISOLATED as it is, the human ear, in its essential parts, at least, is remarkably preserved from the accidents and diseases incident to most other organs of the body. Excluding the pinna and external auditory canal, and regarding simply the sound conducting and perceptive portions, it is almost axiomatic that the ear is rarely, if ever, the seat of primary disease. For this reason, when called upon to prescribe for symptoms referred to the region of the ear, the wise physician looks abroad to find the cause or causes of the disturbance. When we consider the anatomical relationships of the ear, and the paper-wall-like partitions which separate it from other structures and tissues, many of them related to life itself we need not be surprised that disease of this organ is a matter of importance, beyond its mere effect upon the hearing function. Likewise the nervous and circulatory connections of the ear, and its internal relationships by continuity of tissue are such that disease of neighboring, or even remote parts, may directly communicate with and produce uncomfortable or dangerous involvement of the hearing organ.

The middle ear, that portion lying between the tympanic membrane externally and the bony wall protecting the internal ear, may be described as a roughly shaped and irregular cube. The walls of this cavity are so closely related to important structures that the pathological possibilities of each wall deserve separate and special study. The outer and inner boundaries of the cube have been mentioned already. The floor lies directly upon the jugular fossa, while the roof is an extremely thin plate of bone separating the tympanum from the cranial cavity. In infancy and early childhood the bone may not have formed and the dura mater itself may be the only protection to the brain. The free vascular communication between cranium and ear makes it possible for an inflammation to pass readily from one to the other. The posterior wall of the cube communicates with the mastoid cells, while the anterior wall is in juxtaposition to the internal carotid artery and is separated from it by a very thin layer of bone.

It is readily seen from this review of tympanic anatomy that disease, especially if accompanied by suppuration or caries or necrosis of bone, may easily result in loss of life. Insurance companies seem fully justified in their rejection of applicants thus afflicted.

It is the purpose of this paper to call attention to the otitic complications, deafness especially, of conditions commonly treated by the practitioner rather than the specialist. The list of such diseases is long indeed. Time will permit mere mention of most and detailed discussion of but a few.

In classifying the ear symptoms which may be referred to the attending physician, five characteristics will be found to cover most cases: Deafness, pain, tinnitus, disturbances of equilibrium, and facial paralysis. The frequency of each is probably correctly indicated in the order of enumeration. One or more, possibly all, of these symptoms may be met in a given case.

In order to appreciate the importance or unimportance of deafness as a symptom, it must be determined what particular portion of the auditory apparatus is responsible for the loss of hearing power. This opens an almost endless subject. But the practitioner, even though he be uninformed in otological lore, may quickly determine the location of the otitic lesion. It is important that he do this, because the deafness may result, in some cases, from involvement of the sound conducting apparatus, and, in others, from lesions of the perceptive portions of the ear.

Among the latter, that is in conditions affecting the internal ear, may be mentioned typhoid fever, diphtheria and erysipelas; also influenza and measles may be mentioned here, although the last-named diseases are more likely to produce disturbances of the middle ear. The labyrinth in these cases is thought to be invaded by the specific organisms of the disease, and its tissues to be more or less destroyed by the pathogenic action of the bacteria or their toxins.

Fortunately, these structural changes may not be so pronounced as to result in permanent deafness. With general improvement in the patient and the consequent increase in his powers of resistance, the labyrinthine inflammation subsides, and, in convalescence, the hearing power may be quite as acute as ever. If hemorrhage occur, or the germ invasion result in pus formation, the terminal fibres of the auditory nerve

may be destroyed. In such event the deafness is profound and hopeless.

The general practitioner is to be congratulated, however, that secondary inflammation of the labyrinth due to acute disease is rarely fatal to hearing. The results of secondary, chronic inflammation are more to be dreaded. Connective tissue or bony growth, calcareous deposits or other degenerative changes, as might be expected, permanently impair or destroy the function of this delicate organ. In leukemia, syphilis and rickets, for instance, such changes may occur, and the gradually increasing hardness of hearing will probably result in absolute deafness.

In these days we are hearing much of arteriosclerosis and its importance as an etiological factor in many obscure conditions. Perhaps, in this connection, it should be given greater consideration than this writer feels it deserves. It is mentioned, however, in order that the evidence may include it as a possible cause for otitic symptoms.

The so-called rheumatic and scrofulous diatheses have been so relegated to the rear that we must now, more than formerly, seek more tangible and logical causes to explain the pathology of many ear diseases. But whatever the cause may be, it is a fact, established by post mortem examination, that bone hyperplasia and radical vascular disturbance, due to connective tissue formation, are found in the cases of progressive deafness so common in the practice of every physician. As our knowledge of disease increases and when the causes of pathological conditions are better understood, we will doubtless be more useful in the relief of such patients. It certainly is the duty of the profession to attempt something in this line. In the writer's opinion, the causes of sclerosis of the middle ear are systemic, rather than local, and a means of prevention, and perhaps of cure, must be given us by the general practitioner.

In what is sometimes called otitis media insidiosa, or sclerosis of the middle ear, the most conspicuous and most constant condition is ankylosis of the stapes. It will be remembered that the foot-plate of the stirrup bone fits into and, normally, is freely movable in the oval window. In this disease it becomes more or less fixed, is, of course, less freely movable, and, as a result, deafness is more or less pronounced. Were this condition purely the result of catarrh it would be much more common than it is, and examination would reveal adhesions

and fixation from changes in the soft tissues. The researches of and the sections prepared by Siebenmann and Bezold seem to prove that there is hyperplasia of bone of the foot-plate, with consequent complete or incomplete ankylosis. Unless it can be shown that the bony changes are secondary to vascular or other involvement of the mucous membrane of the middle ear, it must follow that the causes of the ankylosis are to be sought in systemic disturbance.

In terms of the Wright hypothesis, the opsonic index may be lowered. Certain it is that the powers of resistance are below normal and the system has been unable to resist the encroachment of disease. It is not surprising that the delicate tissues of the ear should be the first to suffer. Unfortunately, the hearing function is so easily impaired that a pathological change so slight as to be of no importance elsewhere becomes of vital interest here. For this reason the first suspicion of aural disturbance should drive the physician to the closest and most careful study of his patient. No remedial, general or hygienic means of relief should be neglected. The future will probably reveal the exact line of treatment indicated, but until that time arrives every possible avenue for the entrance of unfriendly agencies should be closed and every effort made to build up the powers of resistance. Even with present knowledge in the treatment of this condition, no system of medication which does not include a study of the entire human system with a view to a prescription covering the totality of symptoms, can be considered scientific.

The effects of scarlet fever upon the ear are so well known that it seems entirely unnecessary to mention this disease. Most cases of chronic suppuration, or "running ears," at least most such cases of long standing, date from this disease. Not commonly met, but often most profound in effect, is the damage due to mumps. The writer has seen several cases of absolute and permanent deafness following this disease. Brain tumors, especially tumors of syphilitic origin, as well as syphilitic involvement of the ear itself, are other causes of ear trouble. A low percentage of deaf mutes become so as a result of spinal meningitis. Whooping cough has its ear victims and in all the other infectious diseases the ear must be guarded against involvement.

In closing, it is a pleasure to testify to the increasing recognition of adenoids as a fruitful cause of earache and deafness.

Even the laity has come to feel the necessity for treatment of every such case. Undoubtedly many a little chap will grow into healthy and useful manhood because of the wise intelligence which directed attention to this condition.

With wide dissemination of knowledge regarding the prevention of ear disease, deafness in advanced life will be much less common with each succeeding generation. They shall beat their trumpets into plowshares and their hearing-horns into pruning hooks. Men shall not lift up the hand unto the ear, neither shall they say "louder" any more.

ELECTRICAL BURNS FOLLOWED BY DRY GANGRENE: RECOVERY.

BY

C. R. HAMAN, M. D., READING, PA.

ON July 31, 1906, at 10 A. M., I was hurriedly summoned to the Homœopathic Hospital of Reading, Pa., to amputate an arm at the shoulder joint. On arriving there I found a boy of thirteen years of age, whose whole left arm was gangrenous (dry variety) to the shoulder joint except for a small portion of tissue over the deltoid muscle. The right side of the neck was burned from the median line posteriorly to the median line anteriorly, and as far outward as the tip of the acromion process, exposing the outer one-half of the clavicle. The trapezius muscle of this side was entirely destroyed. The posterior border of the sterno-cleido-mastoid muscle was burned away to such an extent that the common carotid artery could be seen pulsating.

There was a large slough on the flexor surface of the right forearm directly above the wrist. There were also slight burns on the fingers of the right hand. In addition to these injuries anæmia was very pronounced.

His physician, Dr. N. Z. Dunkelberger, of Kutztown, Pa., was with him and gave me the following particulars: On July 26, 1906, at 8 P. M., while at play on a grand stand, this boy grasped hold of a live electric wire of 5,500 voltage and then fell a distance of thirty-two feet to the ground. The doctor was immediately summoned and found him unconscious. Shock was complete, pulse 140 and by next day he became de-

lirious. The next day (July 27) the left arm showed signs of becoming gangrenous and on July 31 he was brought to the hospital as previously stated.

The patient was anæsthetized by T. H. Lawrence, M. D., our resident physician. After amputation we found the whole anterior border of the axilla gangrenous, and the axillary artery and vein burned off close to its exit from the lower border of the first rib, with sloughing on the lateral surface of the chest several inches below the axilla. I had no flap to speak of except a short triangular flap over the deltoid muscle. The tissues of the axilla were necrotic to such an extent the few circumflex arteries could not be ligated, so I applied four hemostatic forceps and packed the joint with sterile gauze wet with bichloride 1-3000. I kept the forceps on seventy-two hours.

I next turned my attention to the right side of the neck and right arm. These injuries were dressed with iodoform gauze soaked in bovine and bandaged, and the boy put to bed more dead than alive at 1.45 P. M. His temperature was 101 1-5; pulse, 168; respirations, 28. Arsenicum 3x trit was given internally and Strych. Sulph. 1-50 hypodermically. At 4 P. M. his temperature was 100; pulse, 128; respirations, 26. At 5 P. M., temperature 99.3; pulse, 98; respirations, 24. He was put upon liquid diet consisting of milk, cocoa and beef tea. He did well until August 3rd, when he developed neurotic symptoms, as twitchings of muscles of body, and began to talk at random. Arsenicum 3x trit was now taken away and Stram. 1 min. every hour was given. He voided large quantities of urine involuntarily. These attacks of twitchings were spasmodic and continued until August 5. His anæmia became more pronounced than when admitted.

I determined that if the boy was to be saved it had to be done by combatting the anæmia, and therefore prescribed for him Tinct. Cinchona, Comp. ʒj in glass of milk every six hours. On August 8, I added Bovinine ʒj in milk and Gude's Pepto Mangan ʒj. These were given every two hours in rotation. This was continued until August 13th, when his stools became quite dark, almost black, when I discontinued the Tinct. Cinchona Comp., and in a few days more I discontinued the Bovinine. The Pepto Mangan was continued, however, up to the time he left the hospital, when there was a decided improvement in his anæmic condition, although not entirely overcome when he left for his home on September 10, 1906.

Before leaving the history of this case I want to say that the first few days after his admission the mal-odor arising from the necrotic tissue which had to loosen by sloughing was so pronounced that it permeated almost the entire building. This I controlled by mopping the sloughs with Zinc Chloride, 40 grs. to 1 oz. of distilled water. In spite of so large a sloughing surface his temperature seldom went above 102 F., occasionally it reached 103 F., but never higher.

His physician, Dr. N. Z. Dunkelberger, informs me that at this time (December 13) the boy's shoulder has entirely healed, so also his right arm and hand, leaving the two, middle and ring fingers, contracted to semi-flexion and the neck has a granulating surface of about six inches square.

Now what lessons can we learn from this case? In the first place, it illustrates the vitality of a boy thirteen years of age.

Second. The tolerance of the human body to necrosis or gangrene without causing death from septicæmia.

Third. It serves to show the tolerance of a high voltage without causing immediate death.

Fourth. The question might be asked whether this arm was not carbonized by the electric current, to which I would reply. No, as the arterial and venous supply was completely severed, leaving no other condition but dry gangrene.

LEUKÆMIA.

BY

GREGG CUSTIS BIRDSALL, M. D., WASHINGTON, D. C.

(Read before the Washington Homœopathic Medical Society, Feb. 5th, 1907.)

OUR President has placed upon me the responsibility of presenting to you a subject of which I know little. Fortunately, cases of leukæmia are very rarely seen. Of course, this is looking at it from the patient's point of view. To the experimenting physician it is more or less of a misfortune.

As to the causes of leukæmia, there is great uncertainty. Each investigator has had his own theory and therefore theories are more numerous than facts. The latest of these theories is that the disease is of bacterial or amœbic origin. Personally, I think the most correct theory is that some change in the sympathetic

nervous system produces a relaxation upon the productive leucocyte or lymphocyte center producing a hyperplasia of the cells.

It is a peculiar fact that leukæmia is most frequent in males and between the ages of fifteen and thirty-five.

The onset of the disease is so insidious that it is very difficult to diagnose clinically until well advanced, and the symptoms differ according to the form of leukæmia. There are three varieties—myelogenous, lymphatic and myelolymphatic, or mixed type.

Symptoms common to all the types are feeble digestion with so-called bilious attacks and a state of chronic indigestion. There is an occasional attack of diarrhoea; the patient complains of an ever-present fatigued sensation and, if a close observer, he will notice that his eyelids are slightly swollen when awaking in the morning. The physician is here led astray, for he immediately jumps at the conclusion that renal trouble exists. It does not respond to his treatment and the patient grows slowly worse. The pallor which was at first only slight increases; there is dyspnoea and palpitation on the slightest exertion and all the symptoms associated with an increasing anæmia are noticeable. At this stage the patient is fed upon different iron foods without perceptible results. A dull, heavy, dragging pain is noticed in the left hypochondriac region, and upon manual examination the spleen is found to be considerably enlarged. Ah! the diagnosis is made—chronic malaria with secondary anæmia and the quinine bottle is emptied in vain. If it is of the myelogenous type, a tenderness is elicited by pressure over the long bones. If of the lymphatic type, the lymphatic glands of the groin, neck and axillary region are enlarged and the skin assumes a waxy appearance.

Not until now do most physicians think that a blood examination might be of service. It is made and reveals the typical changes characteristic of this disease, but the diagnosis comes too late in the case to be of any service to the patient. Gentlemen, we cannot emphasize too strongly the value of an early and correct diagnosis—no matter what the case may be—every method known to science should be used.

Returning to our subject—small hemorrhages occur in mucous membranes and petechial spots appear upon different parts of the body, especially the back. Dyspnoea and palpi-

tion increases and death follows shortly after the hemorrhages appear.

There is probably no other disease in which the blood changes are so characteristic. In each type of leukæmia, the hæmoglobin is greatly reduced, the average being about forty per cent. The red corpuscles average about three million (the normal being about 4,500,000). This part resembles a simple anæmia, but it is in the white cells that we find the greater deviation from the normal. The number of white cells ranges from thirty thousand to eight hundred thousand per cubic centimeter, the average being about three hundred thousand. (Normally the white cells are below ten thousand.) The dried films are stained and a differential count of the white cells is made.

In the myelogenous form we find a new element known as the myelocyte. It is much larger than the leucocyte, having one large nucleus, and is of two varieties named according to the stain it takes—neutrophilic or eosinophilic. About thirty per cent. of the white cells are of this variety. The polymorphonuclear variety, which is normally about seventy per cent., is reduced to about forty-five per cent., and the lymphocytes, which average about twenty-five per cent. normally, are in this form of leukæmia, reduced to five or ten per cent.

Lymphatic leukæmia presents an entirely different picture. The field is covered with lymphocytes, the small size predominating, and myelocytes are rarely seen. The lymphocytes comprise about ninety-five per cent and the polymorphonuclear variety about five per cent.

In the myelolymphatic form all these elements are hopelessly mixed, but the diagnosis is comparatively easy by means of the blood examination, there being about seventy per cent. lymphocytes and twenty-five per cent. myelocytes and five per cent. polymorphonuclear.

The spleen often attains enormous proportions and in many cases fills the entire abdomen. Death often results from its rupture.

The prognosis is very bad. In chronic cases the duration is from one to five years; in acute cases from one week to six months.

Hodgkin's disease (pseudo-leukæmia) bears a close resemblance to leukæmia in its clinical symptoms, but upon examination of the blood only slight anæmic changes are found.

Pernicious anæmia sometimes resembles leukæmia, but its blood changes are entirely different. In it we find a very low red corpuscle count—one million or less, the white cells about normal or even decreased, and numerous nucleated red cells.

Cases of general adenitis or multiple sarcoma are often very difficult to diagnose from leukæmia. In both diseases there is general swelling of the lymph glands associated with anæmia and leucocytosis, but a careful differential count of the white cells will generally suffice to make the diagnosis absolute.

Probably few of you physicians have ever been called upon to treat a case of leukæmia. I trust you never will, as it is a hopeless task. I have been fortunate enough to observe three cases of leukæmia, none of which were in my own practice—two proved fatal in a short time and the other was apparently getting better the last time I heard from him. The drugs which we already have in our possession seem to exert little influence upon this disease. Both the homœopathic and regular school receive some benefit from the use of Arsenic. No case has ever been reported as cured by drugs. Picric Acid, Calcaria Ars. and Ferrum Picricum have been of value in alleviating some of the suffering. For the hemorrhage *Crotallus Horridus* and Phosphorus are of value.

Roentgen rays have been of more value in the treatment of this disease than any other therapeutic measure. Exposures are made over the long bones and spleen, beginning with short exposures and gradually increasing the length of time. Just what the effect is cannot be determined, but in some cases the blood returns to its normal consistency and the spleen and lymphatic glands decrease in size.

Treatment has to be continued for a considerable length of time, as the condition tends to return as soon as the treatments are discontinued. Laidlaw and Deiffenbach, of New York, have done extensive work in this line and report very satisfactory results. As both men are very original and thorough investigators, their results can be depended upon, but sufficient time has not yet elapsed to determine whether or not the cases are permanently cured.

EDITORIAL

AN ATTEMPT TO DESTROY HOMŒOPATHY AND ITS LESSONS.

It seems most untimely that almost immediately after Dr. Cabot, of Boston, and other prominent allopathic physicians have been assuring us of the spirit of friendship and interest which the dominant school of medicine has developed for the homœopathic branch of the profession that a bill should be introduced into the Legislature of Pennsylvania, the object of which is to curtail the rights and privileges which the homœopathic school has previously enjoyed and to place the power of granting licenses for the practice of medicine and surgery in this State entirely in the hands of the old school. Nor is this all, for we find on further inquiry that it is the intention of the dominant school to introduce similar bills into the legislative bodies of every State in the Union. This intention has already been carried out in New York and Texas. More than two years ago this plan was decided upon at the meeting of the American Medical Association at New Orleans, where it was openly boasted that if *one board* licensing laws could be secured in all the States there would be but one school of medicine within ten years.

The first intimation that the homœopathic school had of the fact that the dominant school was desirous of doing away with the present law was received two or three months ago. At this time a conference was held between a committee of the old school and the legislative committee of the Homœopathic Medical Society of the State of Pennsylvania. At this meeting the old school representatives advocated the abandonment of the present law regulating the practice of medicine and surgery because it was not efficient in preventing osteopaths, christian scientists and other unlicensed persons from treating the sick for the sake of gain. They also proposed to substitute for the present law an act providing for the establishment of a single examining board, in which members of the old school were to be dominant, whose duty it should be to examine all candidates for the practice of medicine and surgery, or *any of*

their branches in this Commonwealth. The *one board* feature of this bill was strenuously opposed by the homœopathic physicians present, and after considerable discussion the old school representatives agreed to strike out the clause providing for *one board* and submit a bill providing for *three boards* of examiners. A bill embodying these features was accordingly drawn up and presented to the Committee on Public Health and Sanitation of the House of Representatives of Pennsylvania about the middle of January. Naturally it was opposed by the osteopaths and by the christian scientists, and the old school committee, seeing it was in danger of defeat on this account, drew up a *one board* bill, and without notifying the homœopathic members of the joint conference, presented the bill to the Legislature on January 31st and are putting forth every effort to secure its passage. So far they have been able to secure a favorable report on it to the House from the Committee on Public Health and Sanitation—a committee of twenty-five members, eleven of whom are allopathic physicians. So quickly and so quietly has this bill been proposed to the Legislature that comparatively few homœopathic physicians are aware of its existence, much less of the provisions it contains that are harmful to our school of medical practice. A few words, therefore, regarding the important provisions of this proposed act will not be amiss.

Section 1 of the act provides:

“That there shall be established a Medical Council of Pennsylvania, consisting of the Lieutenant Governor, the Attorney General, the Secretary of Internal Affairs, the Superintendent of Public Instruction, the Commissioner of Health, who shall be ex-officio secretary and treasurer of the Medical Council, and four members of the State Board of Medical Examiners provided for in Section 6 of this act, one of which four shall be the President of the State Board of Medical Examiners, and *no two of which four shall be members of the same State Medical Society or State Medical Association.*”

At the present time there are in existence in this State four State Medical Societies, one allopathic, one homœopathic, one eclectic and one osteopathic. The presumption would be, therefore, that there should be one representative from each of these schools of practice. There is nothing in the act, however, to prevent the old school from organizing a State Association of Surgeons, a State Society of Gynæcologists, etc.,

and the using of their influence with the Governor to have the appointments made from such societies. In this way it would be legally possible for them to secure all four appointments for men under their control. In Section 6 we find the following important clause:

"It is further enacted that from and after the first day of March, Anno Domini one thousand nine hundred and eight, there shall be and continue to be a *Board of Medical Examiners* for the State of Pennsylvania. *The Board shall consist of nine members*, and each of said members shall serve for a term of three years from the first day of March next after his appointment, with the exception of those first appointed, who shall serve as follows, namely: Three for one year, three for two years and three for three years from the first day of March, Anno Domini one thousand nine hundred and eight.

"The Governor shall appoint the members of said Board of Examiners from the *full lists of the legally qualified members of the State Medical Societies or State Medical Associations* of this Commonwealth, which lists shall on or before the first day of January, one thousand nine hundred and eight, and annually thereafter be transmitted to the Governor under the seal and signed by the secretary of the society or association so nominating. In case of failure of any medical society to submit a list as aforesaid the Governor shall appoint from members in good standing of such society or societies according to the last certified list of members furnished. Each one of the said appointees must be a legally registered physician in good standing and shall have practiced his profession under the laws of the State for a period of not less than ten years prior to such appointment."

This portion of the act was designed to destroy our homœopathic schools and colleges. Under this law the number of representatives of each school of medicine on the Board of Examiners is not specified. They might all be homœopathists—we grant this is improbable—they might all be allopathists—this is much more likely. But let us assume that the Governor of this Commonwealth in appointing the Board of Examiners under this law would justly endeavor to divide them among the various schools in proportion to their members in this State. He would recognize the fact that there are in Pennsylvania 6,000 allopathic practitioners, 1,200 homœopathists, and a small number of osteopathists and eclectics. On this basis his only course would be to appoint six representatives of the dominant school, one representative of the homœ-

opathic, one of the eclectic and one of the osteopathic school. Considered from every possible standpoint, we are forced to the conclusion that this clause contains the aim and purpose of the entire act, namely, *to give the old school a monopoly of medical licensure* in Pennsylvania.

Should this power be placed in their hands its destructive effect on homœopathic schools and colleges would at once become evident, as students would be well aware of the disadvantage of graduating from a homœopathic institution if they must obtain their license to practice their profession from a State Medical Board dominated by men openly and bitterly opposed to the medical principles and practices in which they had been trained.

In Section 10 we find a list of the subjects in which the applicant is to be examined :

"The Board of Medical Examiners shall not less than one week prior to each examination submit to the Medical Council of Pennsylvania questions for thorough examination in anatomy, physiology, chemistry as applied to medicine, hygiene and preventive medicine, pathology as applied to medicine, symptomatology and diagnosis, surgery, obstetrics and medical jurisprudence and toxicology. From the lists of questions so submitted the medical members of the council shall select the questions for each examination."

It will be observed that no provision is made for any examination in *Materia Medica* or *Therapeutics*. It must appear rather absurd to most persons that in a law, the object of which is to protect the people of this Commonwealth who are in need of medical treatment from incompetent practitioners, no provision is made for ascertaining whether the applicants to be examined have any knowledge of the agents and of the principles to be employed in the treatment of disease. We do not feel that this attempt to lower the standard of medical requirements will meet with the approval of the great mass of the people or of the physicians of this State.

The further provisions of the proposed act need no special comment at this time. Sufficient has been said, however, to demonstrate, first, that this act was proposed by the old school for the express purpose of blotting out homœopathic schools of medicine in this State and thus ultimately of obliterating homœopathy entirely and, second, that failing in the passage of this act at the present session of the Legislature, they will

renew the attack at coming sessions of the Legislature until they gain their end if possible.

Only by united effort and by an appeal to the sense of justice and fairness of the representatives of the citizens of Pennsylvania at Harrisburg can homœopathic physicians succeed in maintaining their right of equal representation in the State Board of Medical Examiners.

THE TEST DRUG-PROVING OF THE O. O. AND L. SOCIETY.

WITH the above title, a valuable work has reached the Homœopathic profession. It is an experimental study of the pathogenetic action of *Belladonna* upon the healthy human organism, arranged and condensed by Dr. Bellows, of Boston, the general director of the proving; and, after a careful analysis of this book, we can well assert that the labors of our school were never carried on with equal assiduity and unremitting zeal—with so much scrutiny and design, as in the present case. One, in fact, does not know what to admire most; the pluck and perseverance of the provers, or the method and scientific precision of the schemers. The criticism of those who have found fault with the schematic arrangements of former provings can surely never reach this correct, painstaking, stupendous undertaking. I venture to say that even our opponents can have nothing but admiration and respect for the scientific, conscientious manner in which these experiments were made.

Special attention was first paid to the source and purity of the drug employed, work which was placed in competent hands, for it was to be a *pure drug-proving*. Every symptom was obtained by the action of *Belladonna*, in non-toxic doses, upon the healthy organism of fifty-three provers, nine of them females; and in the preparation of the book every addition or admixture of any symptoms or drug effects derived from any other sources were discarded. To make the work more accurate and give weight to the observations, *histological and bacteriological examinations were not neglected*, and neither were other usual means of investigation disregarded, such as the examination of the blood, urine, arterial pressure, etc., etc.

Every observation definitely approved and accepted is reported in full, preceded by a note on the subject. Day by day

the history of the proving, as well as the dosage of the drug, is faithfully given. And as stated by Dr. Bellows, the basis of study in every proving is a *narrative* and next to the narrative, and serving in a measure as an index to it, is presented a *synopsis of the effects of the drug* as exhibited in distinct systems or physiological divisions of the body, such, in fact, as I have adopted for all my papers on *Materia Medica*. "In the summary of results in condensed form, where the records of the fifty-three provings are thrown into one, a *physiological or systemic schema is presented*. This is based upon the synopses mentioned and preserves, so far as is possible, the sequence in the development of the symptoms. Then again a systematic description is given of the action of the drug in general, as well as the action in detail; and in order to compare with profit the summarized results of the proving with those obtained by older methods, an anatomical schema was adopted which would conform to the standards of former labor's of the kind.

The chapter on the effects produced by *Belladonna* upon animal organs and tissues, with its interesting illustrations, will be found of value. And finally, to make the experiments clear and comprehensive, the work has been divided into various chapters. In the first two is found the history of the proving; the third chapter gives the description of the symptoms in chronological order, followed by an arrangement under the distinct systems or physiological divisions of the body; in the fourth, the symptoms are presented in groups and these groups are arranged, as nearly as possible, in the order of their development; in the fifth the schema is anatomical and the symptoms are also presented in groups, and these groups are arranged as nearly as possible in the order of their prominence, not of their development; in the sixth, the results are summarized in general terms. This summary may be used as a key for quick reference to the larger systemic schema; and the seventh, as stated above, deals with the effects of the drug upon the animal tissues and organs.

Such is the work we are reviewing, and while voluminous and complex, it is nevertheless methodical and practical. It certainly will remain as a living example for further provings and research, and one for which the Homœopathic profession will be ever indebted to the unceasing labors of Dr. Bellows and his co-workers. "*Let us see who next will use the net.*"

EDUARDO FORNIAS, M. D.

GLEANINGS

DECHLORINATION IN DROPSICAL CONDITIONS. According to the views of Widal and Javal, of Paris, the dropsical accumulations in cardiac diseases are the result of the accumulation in the tissues of salt which attracts to itself water. When the power of the heart is restored, chlorides are again tolerated. Treatment by dechlorination is carried out as follows:

PRACTICE OF DECHLORINATION. In commencing treatment, the patient should be weighed, and put on a diet containing no added salt. If a purely milk diet be selected, salt is calculated as being present to the extent of 1.6 grm. pr litre; an average mixed diet for one day contains only 1.5 grm. of natural salt. Dechlorination and dehydration take place most quickly when the patient is strictly confined to bed. As a rule progress is steady; but the rapidity with which weight is lost differs widely in individual cases. One patient loses 28 kilos. in seventeen days; another will require six weeks gradually to get rid of 12 or 13 kilos. of water. It is very important to note the exact body weight at which visible œdema disappears. As soon as dehydration is complete and the weight has become stationary, endeavor by giving small quantities of salt to gauge the permeability of the kidneys. Begin with 3 grms. daily, and if the weight does not rise, and if the chloride balance remains in equilibrium, slowly increase. Should the œdema not entirely disappear in spite of dechlorination, drainage, diaphoretics, and diuretics (especially theobromine) should be used.

COMPOSITION OF A SALT-FREE DIET.—Ordinary bread contains from 0.8 to 1 per cent. of salt; it must, therefore, be baked without added salt, and then contains only about 0.07 per cent. This is the only ailment requiring special fabrication; it suffices to cook the others without adding salt. The dietary may be drawn from among the following: Red and white meat of any kind, eggs, fresh-water fish, fresh butter, cream, potatoes, vegetables, farinaceæ such as rice and tapioca, fruit, pastry baked without salt or salt butter, and, to a limited extent, milk. Beverages of all kinds except certain saline mineral waters, are allowed. The following articles are to be avoided: Salt-water fish, cheese, nearly all forms of smoked, salted, or otherwise preserved meat; fish, vegetables, etc.; hams, sausages, oysters, and soups. Widal's usual instructions are that the patient may have from 100 to 200 grms. of fresh meat daily, and farinaceæ, sweets, fruits, etc., as appetite demands.—*The Edinburgh Med. Jour.*, Nov., 1906.

PTOMAIN POISONING FROM CANNED BEANS. Rolly (*Munchener med. Wochenschrift*, No. 37) cites a case in which a number of men in a warehouse had partaken of canned green beans for dinner. In about twenty hours they started to come to the hospital with severe enteritis, chills, nausea, vomiting, headache, vertigo and diarrhea. These symptoms were noticed in some cases within four hours of eating the beans. This condi-

tion lasted three to four days, and all of the 250 persons affected slowly recovered. The beans had been heated, but not to the boiling point. An examination of the beans showed the presence of the colon and paratyphoid bacillus, and the trouble was due more to their toxins than the presence of the bacilli themselves.—*The Medical Age*, December, 1906.

SENILE WARTS AND EPITHELIOMATA ORIGINATING FROM THEM. Walsh (*British Journal of Dermatology*) says that this condition of the skin—which has received a variety of names, such as “seborrhic warts” and “senile hyperplastic sebaceous gland tumors”—has been more or less carefully described by a large number of writers, such as Neumann, Barthelmy, Pollitzer, Unna, Brocq, Jarisch, and Dubreuilh. In these descriptions there is considerable diversity of opinion, both with regard to the typical histological architecture of the lesions and their true place in the list of skin affections. With a view of assisting in the solution of these problems the writer has studied eleven cases, which occurred not only in old people, but also occasionally in early life. It has been suggested that these lesions should be placed under the category of soft nevi, but this was not borne out in Walsch’s sections. The initial stage of the senile wart is an inflammatory condition of the underlying corium, the inflammation being most marked in the neighborhood of the hair follicles and sebaceous glands, and is seborrhic in nature. The name “senile wart” is unfortunate, as it is not in the true sense of the word a wart, but only a condition of acanthosis associated with the underlying inflammation, and is not necessarily senile, as it may occur in young individuals in association with other seborrhic indication. Instead of “senile wart” the author suggests the name of “acanthosis verrucosa seborrhica.” He says that the malignant growth which not infrequently results from these lesions is caused by some unknown irritant acting on the altered epithelium.

THE TREATMENT OF TAPEWORM. Fowler recommends the following treatment:

The patient is put in bed, and for two, three, and in some cases, four days, is given a diet consisting of beef-tea, two pints; Mason’s essence, one tin; two rusks; and port wine, four ounces. During the same period the patient takes tabloids of cascara sagrada (two grains) three times a day. On the fourth day (usually) at 5 A. M., haustus sennae co., one ounce; at 9 A. M., a capsule containing fifteen minims of the extract of male fern; at 9.15, ditto; at 9.30, ditto; at 9.45, ditto; at 11 A. M. haustus sennae co., one ounce. If by 1 P. M. the worm has not been passed and the head found, a second course of treatment with male fern at intervals of fifteen minutes is begun; to be followed in an hour by a purgative draught. If the head is not found, a third treatment is prescribed. It is rarely advisable to continue the treatment beyond this without an interval of a day, as the patient may be somewhat exhausted. The chief points of difference between this and other modes of treatment are: (a) Complete rest in bed; (b) prolonged period of restricted diet; (c) giving the drug in divided doses, thus making sure that it will not miss the worm, and also avoiding the nauseous taste of the drug by giving it in capsules; and (d) searching for the head of the worm. In twenty-two cases the head was found in seventeen, and a cure effected in two more—86 per cent. in

all. The male fern appeared to be just as effective against *tania medio-canelleta* as against *taenia solium* and *bothriocephalus latus*.—*British Medical Journal*.

PATENT MEDICINES IN ENGLAND. That all the patent medicine fiends are not found in this country is shown by figures recently published regarding the sale of nostrums in England. The patent medicine traffic there amounts to nearly forty millions of packages, representing an outlay of nearly three millions of pounds sterling.

NEURASTHENIA AS MODIFIED BY MODERN CONDITIONS AND THEIR PREVENTION. Dr. Thos. C. Ely, in discussing this subject mentions the following causative factors which may be in a measure prevented: 1. Faulty hygiene. 2. Trauma. 3. Toxins and the neurasthenia of organic and functional diseases and of removable reflex causes. 4. Overwork and worry. 5. Heredity. 6. Mental education at the expense of the physical. 7. False ideals and standards of life.

He believes that the prevention of neurasthenia must be along the line of knowing causes and avoiding them.

1. Let every individual know his limitations and act accordingly. Let every individual know his own boundary line of nerve force and never cross it. Let every individual live less of the strenuous life of any ideal hero, unless there is the same muscle and nerve force and training and honesty of purpose and endeavor, also, which characterize such hero. Let every individual recognize heredity, predisposition and individuality of nerve force.

2. Learn to hurry little and to worry not at all. An illustration consists in the fatigue from the hurry to catch a train which is out of all proportion to the physical effort expended. It is the worry, the psychical fatigue, which is chiefly injurious. Individuals are too much like the modern telephone sign, "Always on duty," for hurried and worried business or hurried and worried pleasure. Hurry alone or worry alone are poisonous to the normal functions of the nerve system; but the American combination of worried hurry is deadly. Each brings into full action the worst features of the other. They are incompatible, and the resulting combination is fatal to nerve centres.

3. Discourage and prevent intermarriages of those of neurotic tendency and parentage, who are unfortunately apt to be fond of each other and to seek such unions.

4. Follow strictly the a, b, c, laws of hygienic life, thus avoiding, as far as it is possible, not only pure neurasthenia, but the neurasthenia incident on organic disease. Lead the simple life of plain food and regular occupations.

5. Be sure that ideals and aspirations of life are true. Study limitations and qualifications and work along the lines of least resistance. Work, which may seem to be a cause of neurasthenia, is often a prevention and cure, diverting the mind from those troubles and anxieties which do not exist in reality.—*Jour. Amer. Med. Assoc.*, December, 1906.

GENERAL PERITONITIS. Mayo Robson reviews the former methods of treating acute general septic peritonitis, i. e., first by opium and later by purging the bowels freely. In his opinion the results of such treatment will be disastrous. The salient points in the operative treatment, which is now most commonly used, are: 1. The removal or repair of the cause with or without irrigation of the peritoneal cavity. 2. Drainage of the site of operation by a split rubber tube containing a strip of gauze and of the peritoneal cavity by a tube in the pelvis, assisted by the reclining position. 3. Rapidity of operation. 4. Avoidance of the unnecessary exposure and handling of the viscera. 5. The prevention of shock. 6. The free administration of saline fluid by the rectum. 7. Rectal alimentation and the stoppage for the time of mouth feeding. 8. The avoidance of opium and sometimes the administration of repeated small doses of calomel subsequent to operation.

To properly understand the treatment of peritonitis, certain facts must be grasped. The lethal issue of acute peritonitis is due to poisoning from toxins formed in and absorbed from the general peritoneal cavity. Infection may follow a perforation of a hollow viscus, or the germs may pass through the diseased but unbroken walls of the gastro-intestinal tract. When the peritoneum is not immediately flooded by septic organisms, the first to migrate are the mild staphylococci albi which tend to increase the phagocytosis and prepare the peritoneum for the invasion of the more virulent germs. When the peritoneum is flooded with the virulent organisms the patient may be killed in a short time if they are not removed by irrigation and thorough cleanliness—if necessary, by splachnoptosis. The use of opium masks symptoms at first and leads to a false sense of security, frequently deceiving both the patient and the doctor and leading to fatal delay; later it increases intestinal paresis, and leads to distention and to an inhibitory effect upon leukocytosis.

In order for drainage to be effectual in general peritonitis the cause must, as a rule, be repaired or removed, so that fresh poison may not invade the peritoneum. The administration of saline fluid by the rectum is most useful; enormous amounts are absorbed, and the current of the lymph stream is reversed, so that instead of absorption taking place from the peritoneal surface, the mouths of the lymphatics pour out fluid which bathes the peritoneum and carries the infection down to the pelvis. The fluid moreover fills the vessels, combats shock, and is excreted from the kidneys, carrying with it septic material from the blood. As all food or fluid by the mouth sets up peristalsis with subsequent dissemination of septic material from the original focus of disease, all feeding by the mouth before operation should be withheld, rectal alimentation being substituted. In many cases of appendicitis the disease may thus be localized. The chief factor in the treatment of spreading and general peritonitis is early diagnosis and operation without loss of time.—*The Lancet*, December 29, 1906.

J. D. ELLIOTT, M. D.

END-TO-END ARTERIOVENOUS ANGIORRAPHY. Howard Lilienthal attempted to cure a patient suffering with gangrene of the foot, due to arteriosclerotic changes in the femoral artery, by suturing the femoral artery into the fe-

moral vein. The patient suffered from severe shock and died 31 hours after the operation. Death would probably have followed amputation of the leg under the same circumstances as the operation required only 50 minutes and no blood was lost. Pulsation was marked in the visible portion of the femoral vein and could be felt, though intermittently and with some difficulty in the external saphenous. No pulsation of any of the veins of the foot was noted, but from the ulcers, which at the beginning of the operation were markedly cyanotic and did not bleed, bright red blood began to exude. In spite of this failure, the author believes that with better cases such anastomoses may be successfully performed.—*Annals of Surgery*, January, 1907.

J. D. ELLIOTT, M. D.

SILVERIZED CATGUT. Blake has made a number of experiments of the power of collargolum to sterilize catgut. These apparently show that catgut prepared in this manner is not only aseptic, but is capable of inhibiting the growth of bacteria. He placed chromic and plain sterilized catgut under similar tests. The chromic remained sterile, but growths were frequently obtained from supposedly sterile catgut prepared by the Fowler method. Dr. Pilcher has now used silverized catgut in more than 500 operations with abundant satisfaction. How quickly such catgut is absorbed was not stated, but from one test it is apparently slightly weaker than chromic and considerably stronger than plain sterilized catgut.

The following is the method of preparation: Four coils of catgut, each containing ten strands, are wound on four glass slabs, and placed in a jar containing a 2 per cent. solution of collargolum. They are allowed to remain in this for a week, the jars being shaken once or twice in the interval. The slabs are then removed, washed in sterile water until the excess of collargolum solution is removed, and placed in 95 per cent. alcohol for fifteen to thirty minutes. After this the separate strands are wound on separate spools, under aseptic precautions, and preserved in 95 per cent. alcohol until used. A fresh solution of collargolum is necessary each time.—*Annals of Surgery*, January, 1907.

J. D. ELLIOTT, M. D.

ACNE. DRY CUP METHOD OF TREATMENT. Bier's principle of localized hyperæmia is applied in the treatment of acne by Moschowitz, who reports eight cases successfully treated. Dry cups with rubber bulb attachment are used, the cups should not be over an inch and a half in diameter. They should be applied once or twice daily on the affected areas, for from a half to a full hour. The cup should not be applied more than one to two minutes at a time, the suction should be slight and should not leave a mark. From two to five treatments are required for a cure for each area. The formation of new pustules is, however, not prevented, these must likewise be treated until all have disappeared.—Eli Moschowitz, *Medical Record*, January, 1906.

RALPH BERNSTEIN, M. D.

ACNE. LOCAL TREATMENT OF. According to C. M. Williams, local treatment is of the utmost importance, care must be taken that every

affected part be reached and treated. Hot water should be applied at night when there is much inflammation, and is of much benefit. Daily washings with cold water without soap are to be practiced. Acutely inflamed parts are not to be rubbed or squeezed as further infection usually follows. Brisk rubbing after the cold water washings, in the more chronic cases does much good. The face should always be protected from exposure to cold winds and heat, especially dry hot air, as over a fire, and dust. Topical applications should always be mild in the acute cases, such as diluted solution of milk of magnesia, or the lotio calamine. In the more chronic cases stronger treatment should be used, sulphur in some form is usually of benefit. The sulphur treatment should be varied from powders to lotions or salves in different strengths, and these in turn should be alternated with bland substances. Lotio Alba or the Compound Zinc Sulphid Lotion is the best for routine use. It should be thoroughly shaken, and then applied with a clean soft cloth, and allowed to dry on. A small quantity of the solution should be poured into a saucer, and then not used again, as in this way the spread of the infection is prevented. The same cloth should likewise not be used again. This application should be applied at night, the white coating being allowed to remain until the morning, when it can be washed off with cold water and followed with a brisk rubbing.—C. M. Williams, *Medical Record*, July, 1906.

RALPH BERNSTEIN, M. D.

ACNE. TREATMENT OF WITH CUTANEOUS PUNCH. Kromayer has devised a small sharp cylindrical punch, with which he removes small sections of skin containing the infected glands. The revolving punch is driven by a small motor or dental engine, and is forced into the lesion down to the subcutaneous tissue, the detached tissue being removed with scissors and forceps. Free drainage is thus secured for the larger indurated areas, and the beginning gland infections and comedones are entirely removed. Kromayer contends that the method is almost painless and that it is certain and easy to operate, that scarring is so minute that it is hardly detectable and that inflammatory reaction is so slight that operations performed in the morning are quite subsided by night. Local anæsthesia can be used, but as a rule it is not necessary.—Kromayer, *Berliner Klin. Wochenschrift*, May, 1905.

RALPH BERNSTEIN, M. D.

OCULAR PARALYSIS IN OTITIS MEDIA. A report is made of two cases of ocular paralysis occurring in the course of an otitis media. These were in two children, with otitis media of only moderate severity. In each there was paralysis of the abducens of the same side as the otitis. The paralysis was not accompanied by any intra-ocular changes, and disappeared with the cure of the otitis. A review is made of the scanty literature of cases of Gervais, Bettmar, Keeler, Styx, Schubert, etc. In all cases it was on the same side, in nearly all cases it affected the abducens and in few of the cases there was optic neuritis of the same or both sides. The path and method of the involvement of the sixth from the tympanic cavity are obscure. The idea of "reflex paralysis" is practically meaningless. The spread by bone necrosis and cerebral abscess is very exceptional. The rich lym-

phatic and nervous connections of the tympanic space with the venous plexus around the carotid in the cavernous sinus, and the close relations of the sixth with the carotid at this point, make this path the one most likely to be considered, although the exact manner may as yet be impossible of explanation. This pathogenetic question demands further attention.—M. & A. Tersion, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

ACUTE GLAUCOMA FOLLOWING IRIDECTOMY FOR SIMPLE GLAUCOMA. It is maintained that iridectomy in simple glaucoma is always useless, and may produce disastrous effects. The writer reports two cases.

In the first, three days after the operation there was an attack of acute glaucoma; with typical symptoms; œdema of the conjunctiva, greatly increased tension, diminution of vision, and severe pain. In the second case there was the same sequel in the left eye; resulting in glaucoma absolute. The right eye, operated upon at the same time, appeared at least to support the operation, but the vision continued to diminish. These facts, contrary to the older theories, seem to support the views of Pauas and Rochou-Duvigneaud that glaucoma is essentially an œdema of the vitreous. The iridectomy produces this œdema by an irritation of the ciliary nerves; reacting in their turn upon the choroidal vessels.—Opin, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

THE DIVISION OF THE CILIARY NERVES WITHOUT INJURY TO THE OPTIC NERVE. The author relates several cases in which the pain and inflammatory phenomena of cyclitis were relieved permanently by division of the posterior ciliary nerves, without injury to the optic nerve. He believes this operation to be an invaluable addition to our treatment of cases of intractable and creeping cyclitis, which are probably due to inflammation of the ciliary nerves.

This inflammatory reaction extends to the ganglia, which exert a centrifugal irritation on the nerves of the blood vessels, by means of which the inflammation is continued and increased. The fact that the pain continued in the operated eyes from one to two weeks in spite of the division of the ciliary nerves, in his opinion, confirms his hypothesis.—A. E. Fick, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

CONCERNING METASTATIC CARCINOMA OF THE CHOROID. The author reports a case occurring in a forty-eight year old woman in whom the right breast and axillary glands had been removed four years previously. The right eye was first affected, the carcinomatous mass occupying the temporal side of the eye ball from the ora serrata to two disk diameters from the nuclei. Tension was plus 1. The left eye was then normal. About seventeen days after enucleation of the right eye, she had an epileptic fit which lasted ten minutes, and was followed by vomiting and intense headache. Half an hour later she had a similar attack, lasting fifteen minutes. There were no prodromes. There was no recurrence of the epileptic attacks, but the patient suffered from intense headache, vomiting and vertigo. The microscopic examination of the right eye showed metastatic carcinoma.

The left eye remained normal until two months later, when the optic nerve became swollen, and later was surrounded in a radiating manner by band-like hemorrhages. The symptoms of brain involvement were increased later by the development of palsy of the abducens and intermittent exophthalmias. The patient died about five and a half months after the enucleation, and the autopsy showed general carcinomatosis.

The author believes that the occurrence of metastasis of carcinoma in the choroid indicates general metastasis and shows the futility of operative interference.—Korwalewski, *Annals of Ophthal.*

WILLIAM SPENCER, M. D.

ADHERENT PERICARDIUM WITH ASCITES S. W. Sappington and C. Fred Rau report two cases, aged two and ten years respectively. The major features of the report are the rarity of the condition and the fact that both cases practically present primary tuberculosis of the pericardium. The absence of peritonitis, local or general, in both cases was noteworthy. The first case presented the unusual picture of involvement of but one serous membrane, the pericardium. In their discussion, the authors remark on this, and point out that the terms, polyserositis and multiple serositis, sometimes used to describe the disease, do not always apply, this being more likely in the very young. In the second case there was marked mediastinal involvement. The pericarditis in both instances was tuberculous in nature, but this is not as uncommon as was formerly supposed. The writers note that the tuberculous nature of very many cases of adherent pericardium has about been established. The tuberculous pericarditis in these cases, however, has the additional importance of being, at least in the clinical sense, primary; and the authors evidently believe their second case is pathologically as well as clinically primary. The ascites, they think, must have been due to the congestion of the liver present, it not being explainable on a basis of the usually found peritonitis. The orthodox symptoms and signs of pericarditis and adherent pericardium are of little value in this affection, much more valuable are those suggested by Flesch and Schossberger, viz.: marked or recurrent ascites, without or preceding edema of the legs; enlargement of the liver, persistent cyanosis, especially of lips and ears; a pale, doughy, slightly puffed face, and a small, weak, rapid pulse. This special complex or adherent pericardium, enlarged liver, ascites, and very commonly, multiple, serositis,, should be discussed in standard text books as an entity; this, the writers believe, is especially advisable on account of its confusion with hepatic cirrhosis, tuberculous peritonitis or other sub-diaphragmatic lesions. This report is one of the most thorough and ably presented contributions to the literature of multiple serositis.—*Archives of Pediatrics*, November, 1906.

C. SIGMUND RAUE, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

ALUMINA IN INTESTINAL INERTIA. Anna L., aged 67, applied for treatment at the clinic October 12, 1905. She is spare, thin and dark complexioned. She complained of constipation of 30 years duration. She had exhausted many so-called specifics for constipation, and is much emaciated and complains of feeling prostrated. There is loss of appetite; swallowing is painful and the mouth and throat feel dry. Upon careful inquiry it was found that the stools are not hard but soft, but the difficulty was in expelling them. An examination of the rectum showed it to be healthy. Alumina 30x, a dose night and morning was administered for three days when a placebo was substituted. In one week she reported much improvement. She was kept under observation and the treatment continued; later the remedy was given in the 200, and in six weeks we deemed her well and no further reports are recorded. . . .

TUBERCULINUM IN PULMONARY TUBERCULOSIS. Mr. K., aged 52, came to the clinic August 22, 1905. He had been losing flesh for several months, although eating well. He has a cough and expectorates a muco-purulent material. He takes cold easily, much of the time without knowing how. A physical examination revealed evidence of tubercular deposits in the apex of the left lung while the microscope showed tubercle bacilli in the sputum. Tuberculinum 200, three doses, was given three hours apart, and then Saccharum Lactis. He reported feeling better for several weeks, when on account of a yellowish, thick, excoriating discharge from the nares and the expectoration of much the same material, with marked prostration, aggravation from exertion and cold winds, and relief from warmth, Arsenicum Iod. 6x was administered three times a day, and later the 30x was given. The improvement continued. The cough and expectoration has ceased, he has gained eighteen pounds, and considers himself well.

RHUS TOXICODENDRON IN SUBACUTE RHEUMATISM. Mr. H. came to the clinic August 23, 1906, and complained of a pain in the lumbar region that extended to the hips. Also pains in the knees and calves of the legs. The pain dates back two years at which time he was drenched with rain while overheated. The pains are worse during rest and when first attempting to move, and during cold, wet, rainy weather, at night and especially after midnight, and are relieved by continued movement or from a change of position and from warmth. Rhus Tox. 6x was given. In one week he reported better, when the potency was changed to the 12x, and later raised to the 30x. October 25th he claims he is perfectly well, while later reports show him to be free from all distress.

MYRTUS CHEKEN in Chronic Bronchitis and its Sequelæ. Mrs. H., aged 53, came under observation during November, 1905. She complained of a cough that had been of several years' duration. It was attended with the expectoration of large quantities of thick, sticky, muco-purulent material. The cough and expectoration are always worse during the winter months. A physical examination showed the barrel-shaped chest and all the evidences of emphysema, together with those of chronic bronchitis. The microscope showed staphylococci but in the sputum examined there were no tubercle bacilli. The cough was paroxysmal in character. There was shortness of breath, especially upon exertion. Myrtus Cheken ix, ten drops, was administered every four hours, with progressive improvement till with the approach of the winter of 1906, she is absolutely free from all cough and expectoration, and she feels better than she has in several years. —A. L. Blackwood, M. D., Chicago, Ill., *The Clinique*.

ATHEROMA OF CEREBRAL BLOOD VESSELS. The patient is a man aged 63 years, who gives an excellent family and personal history. Was well until May, 1906, at which time he noticed a jerking of the right arm and leg. This lasted for a very short time. For several days had paroxysms of what he calls cramps in parts of the right arm and leg. These may be interpreted by us as meaning tonic spasms. There developed gradually a loss of power in the right arm and leg, which was shown by loss of ability to use the arm and dragging of the leg when walking. Physical examination is negative beyond showing the increase of the knee jerks on the right side and a weakness of the muscles of the right side. To demonstrate the presence of this muscular weakness it is not necessary to possess elaborate or other apparatus. We can very readily show the paralytic condition of the arm by directing the patient to resist our attempts at making passive movements. Thus, I try to flex the wrist against the patient's effort to keep it extended. I am able to overpower him. I try the same on the left side, which should be the weaker in a right-handed individual, and you see that I do not succeed in making the flexion. So I go over the whole extremity, making flexion and extension at the wrist and elbow and movements at the shoulder, and compare the resistance given by the patient with the sound side. This examination shows that the right arm is notably weak. In making a diagnosis of this case, I am enabled to throw out at once all the lesions capable of producing paralysis of sudden or rapid onset, as hæmorrhage, embolism and thrombosis. I am thus left with the lesions of gradual onset, including, especially tumor, abscess and cerebral degeneration. In this particular case the pains in the extremities also suggest the possibility of a multiple neuritis. Against this diagnosis is the exaggeration of the knee jerks, the limitation of the paralysis to one-half of the body, and the absence of anæsthesia and muscular atrophy. So we have to consider cerebral lesions only. Tumor may be excluded very readily. The classic symptoms of that lesion are absent. These are headache and optic neuritis. But to make sure I have had an X-ray of the head taken, and you will see from the plate that there are no abnormal opacities within the skull. The paralysis cannot be due to abscess, because the etiology of that lesion is wanting. We cannot have abscess unless there is a history of middle ear suppuration, cerebral traumatism, a septic

focus in some portion of the body, or tuberculosis. The two last mentioned are causes of brain abscesses in less than 5 per cent. of the cases. Practically, all cerebral abscesses are produced by traumatism and middle ear suppuration. This leaves us cerebral degeneration to explain the paralysis. At this patient's time of life it can come only from the senile changes in the smaller vessels. This is one of the commonest explanations of various cerebral symptoms in persons of advancing years. In their treatment, potassium iodide is one of the most satisfactory remedies. It has been used in this case in small doses and has given us a good result thus far.—Dr. Bartlett's Clinic, *The Hahnemannian Institute*.

THE NOSODES are a peculiar class of remedies which have been regarded with disfavor by certain members of our body. Dr. Sigmund Raue, in his excellent work on Diseases of Children, speaking of the nosodes, says: "Personally I have no experience with these products; it has seemed to me unnecessary to call upon such uncertain agents in fact of the all sufficient array of well-proved and beneficial remedies at our disposal. It is true in tuberculosis a serum may yet be prepared that will give positive results, but so far there is nothing absolutely certain with which I am acquainted."

Again, the late Dr. Dudgeon—my distinguished colleague and countryman—says: "There is no doubt to whom belongs the honor of having introduced isopathic heresies into the homœopathic school. It was our transatlantic friend, Dr. Constantine Hering, who gave the first impulse to isopathy, for we find him in 1830 proposing as a remedy for hydrophobia the saliva of a rabid dog,—for small-pox, the matter from variolous pustules." Throughout the chapter, Dr. Dudgeon pours much ridicule upon isopathy and further quotes from the *Organon*, where Hahnemann speaks in measured terms of the practice. This illustrious American, Constantine Hering, whose memory is now suitably honored at Chicago and elsewhere, was thus the first to give an impetus to the nosodes.

Hahnemann says: "The attempt is made by some to create a fourth mode of applying medicines in disease by means of isopathy, as it is called; that is, to cure an equal disease by an equal miasm. But supposing this were possible, and it would deserve the name of a valuable discovery, the cure in that case could only be accomplished by opposing a similimum to a similimum, since isopathy administers only a highly potentiated, and as it were altered, miasm to a patient."

Compton Burnett did much to introduce these remedies into England, but there has always been much discussion as to the *modus operandi* of the nosodes. Some contended they acted by isopathy and formulated the dictum "*equalia equalibus curentur*" to correspond with homœopathy, and "*similia similibus curentur*." Two things are, however, certain:

1. That homœopaths were the first to introduce and make use of these remedies.
2. Many of these are very potent and valuable, and have been in constant use since the days of Hahnemann.

The two which I have used most extensively are tuberculinum and syphilinum. . . . —J. Robertson Day, M. D., University of London, in *The New England Medical Gazette*.

GNAPHALIUM POLYCEPHALUM. E. W. McAdam, '07, N. Y. H. M. C. & H. The common Life Everlasting, seems to have action especially on the sciatic nerve and on the abdomen, thus making it somewhat akin to Colocynthis. Its chief use has been in the treatment of sciatica, and the special indication is set down as "Numbness alternating with the pain." The provings seem to have elicited no modalities, but we find the following, apparently taken from clinical sources, in Hering's Guiding Symptoms:

Lying down, pain from hip-joint to foot <.

Sitting in chair, pain from hip-joint to foot >.

Motion, pain from hip-joint to foot <.

Stepping, pain from hip-joint to foot <.

Three cases having recently come under our observation in which these aggravations, and ameliorations were almost exactly reversed led us to suppose that we must not lay too much reliance upon them.

Case I:—

Sitting in chair temporary >.

Walking, at first <, continued >.

Lying down, entire >.

Gnaphalium 3, 3 doses cured.

Case II:—

Considerable > lying in bed.

< on first getting up in the morning.

Some > moving about.

Sitting in chair, temporary >, with necessity to move, etc., just as in case I.

One dose Gnaph. cured.

Case III:—

< sitting.

> moving about.

Entire > lying in bed.

Gnaphalium 200, one dose, was given. One week later the man came back declaring himself very much better. Sac lac, was prescribed, and he was told to report in another week, but failed to appear. It is fair to suppose that he would have come had his pain returned.

In all three of these cases it will be seen that the modalities are very like those of Rhus tox., but Rhus pains are usually worse at night in bed; the patient becomes restless from the pain and has to get up and walk about for relief.—*The Chironian*.

SPONGIA. Let us see what particulars characterize the asthmatic oppression from which spongia is suited.

The feature of its asthma is *dryness*.

The expectoration being scanty cannot be raised easily.

Cough is therefore dry, sounding and painful and hard and croupy.

It has asthmatic oppression, particularly after midnight or towards morning.

It has rousing from sleep as if suffocating or dying, even like Aconite.

Indeed, it is difficult to separate the spongia, rousing from sleep with hot skin, flushed face, anxious expression, fear of death, rapid respiration, sense of smothering, dry, hard painful cough—from the similar picture so well known as the Aconite picture.

Respiration is wheezing, whistling and sawing, and all the external respiratory muscles are used and the patient pants and labors, and tough white mucus finally comes up.

The dyspnoea requires the patient to sit in a position leaning *forward*.

The cough requires constant sips of water for relief.

A frequent full hard pulse and pain in the region of the heart.

There may be dilatation, hypertrophy, a loud valvular murmur.

I have generally observed that the painful sensations complained of in the cardiac region were variations of pressure, fullness, lack of space, etc.

It seems as if spongia is useful also in the beginning of acute endocardial inflammations with the same symptoms as mentioned.—Notes in Dr. Haines' Clinics in *The Hahnemannian Institute*.

RADIUM. It should be borne in mind that radium, like drugs, has a dual action. In mild doses it stimulates nerve tissue, while nerves exposed to its prolonged close action—large doses—are paralysed. Large doses cause hyperemia and migration of leucocytes, followed by a slight contraction and cicatricial tissue which is comparatively scant and so smooth as sometimes to be invisible. The action is quicker upon mucous membrane, and in the degree of its moisture.

Pannus, interstitial keratitis, corneal cicatrices and ulceration yield to this new treatment with encouraging rapidity; but we must confess to skepticism as to its future with optic nerve atrophy. Good results should be found in some forms of conjunctivitis, probably those due to bacteria.

Possibly owing to the germicidal power of radium, radio-active dressings or applications or radio-active water may prove useful in the treatment of affections of the eye, nose or throat, or after operation upon these organs or the ear.

It would seem that for trachoma or conjunctivitis a thin flexible spatula bearing upon only one of its surfaces a square centimeter of a 25,000 radium coating would be preferable to the rod, certainly safer to the cornea.—*The Hom. Eye, Ear and Throat Jour.*

AN EXPERIENCE. By A. G. Downer, M. D., Princeton, Ill. I wish to relate an unpleasant experience as proof of the value of antidotal prescribing in case of bad effects from crude drugs, adulterated foods, or disease miasms. The high potencies do antidote and eradicate the effects of the low.

I am a fairly well man of 49 years, weigh 170 pounds, do not use liquors, use tobacco very rarely; am a careful eater, using meat only once a day, at noon, and then mutton, fish or beef broiled, good wholesome vegetables, making dinner the meal of the day with a very light breakfast and supper, all meals followed by olive oil.

Last July my tale of woe began. During the very hot days I helped to eat at the dinner hour several cans of corned beef (now embalmed beef) and I began to have trouble with my stomach, liver and bowels. Tongue coated heavy white; bowels constipated and gas retained, liver aching, tender, congested, and stomach inactive, flatulent, discomfort of distension, radiating to back and sides, tongue and mouth dry. I began a more rigorous diet of bread dried to a crisp in oven to thoroughly kill the yeast germs, drank nothing but water, ate baked apples and cream, rice, poached

eggs, etc., and carefully prescribed according to symptoms. Chelidonium and Carduus helped the liver, but the other symptoms as narrated above ran right on with aggravation at 4 P. M., which one would think Lycopodium would certainly cure. I called to my aid the best prescribers I knew of, but only palliative results came of our endeavor. Thinking one day of what I had eaten in July and the beef dope, I began to investigate and found I had salicylic acid, borax, boracic acid and formaldehyde as possible causes for my condition. Knowing of former successes by antidotal prescribing, I began my course by taking salicylic acid 50m one day, several doses, and my urinary organs kept me busy for the next two days and nights, with considerable benefit. So with Borax 1m and Boracic acid 1m, following out the line of treatment. I got Formaldehyde 30x of Boericke & Tafel, but by patience made the 1500th potency. I took a dose of this one day thirty minutes after dinner and sat down to read in my office and fell into a ten minutes 'dose. I wakened faint, dizzy and hurried to a couch to avoid falling; was nauseated, but did not vomit; had a profuse bowel movement, but remained sick and dizzy all the balance of the afternoon, evening and next day. But when the storm had blown over my stomach was much better and steadily improved. Do you want any better proof? How can the apparently indicated remedies work when the therapeutic right of way is blocked by a stronger medicinal disease? But get a clear track by antidoting the crude drugs first and then your indicated remedy can and will work. Try it. If anyone wants a graft of Formaldehyde 1500x, let me know and I will gladly send it to him. This antidotal prescribing is not well received by some in the profession. If it is true, you can all do better work by its use.—*The Medical Advance.*

MELANCHOLY CURED HOMOEOPATHICALLY. By C. Assem, Prior. While making a call in the neighborhood, I accidentally met the principal of the school in G., whom I had not met for some time; that is now several years ago. On being asked as to the health of his family, he told me of the great sorrow caused him by the fact that he had to take his oldest son to an insane asylum, and he added: "I do not know what I shall have to do with my wife. Since some time she seems as if lost; she will stand in a corner of the house and sigh and weep; she does not care about the kitchen nor about the rest of the house, saying that it is all in vain, and she rejects all the efforts made to quiet her or to turn her to a better state of mind."

I then offered to send him a homœopathic remedy for his wife, since it was evident that something was not normal. He seemed, indeed, to look somewhat incredulous, but he promised to do his best to try to get her to take the medicine, perhaps by telling her that it was something to give her a better appetite. Next day I sent her in a letter some pellets of *natrum mur.*, and in a few days I received the glad news that the melancholy had gone and the woman was quite changed. I would here remark that she was already far beyond the critical fifties. She herself came driving up some time afterwards to show that the homœopathic pellets had helped her from her imaginary trouble.

Next year a letter from my friend brought the sad news that his wife had a relapse, and was again walking about melancholy and ill-humored,

neglecting her household, etc. Natrum mur. now refused to act; so I sent her sepia. This remedy evidently caused an improvement, and in a few weeks the trouble was again relieved. With the year 1905 came the news that the old trouble with some slight changes had returned. The trial of natrum mur., as also of sepia, proved ineffectual. Now my friend again called on me and told me that he had consulted a physician, who had recommended a change of air, and treatment with cold water. This was accordingly tried for several weeks, *i. e.*, the treatment with cold water, for the patient was not to be persuaded to travel. The whole family was despondent, and he knew not what to do next; so he had come to see once more whether homœopathy had also left him in the lurch. Being asked whether the woman complained of any special pains, he said that she had a rheumatic constitution; but the chief trouble was that the woman continually lamented that the whole family would miserably perish, and that all of them would either have to go begging or else would have to suffer hunger, etc. This lamenting and crying commences regularly every morning already at three o'clock, and is becoming unbearable. Only towards the afternoon and evening she gradually becomes quiet; she is also in general very sensitive and irritable; she cannot, *e. g.*, bear either singing or other music. The fact that the aggravation usually sets in at three o'clock in the morning led me to think that perhaps one of the kali remedies was indicated. I accordingly gave him kali phosph. for his wife, and this proved the right remedy. The psychical disturbance has yielded for the third time, and the patient is again healthy and cheerful, and she has really no reason to have any care about her future. Her second son, who holds an office in the Agricultural Bureau, and who visited his parents at Christmas, wrote me that the whole family rejoiced over the recovery of his mother.

Will this cure prove permanent?—*Homœopathic Envoy*.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

HOMŒOPATHY AND SERUM THERAPY. In the critical analysis of Dr. P. Jousset, on the constitution of therapeutics, Dr. J. Gallavardin was prevailed upon to explain Behring's ideas about isopathy and homœopathy, and the interpretation given by this author to the words of Hippocrates: "What produces diseases cures them." And now, speaks Dr. Villechauvaix: "I would desire to present, on my part, a few observations on the subject. It is far from me the idea to pass judgment upon this critical examination, I have not followed it with sufficient attention to speak about it, but I only would like to attempt to unfold the thick, confused veil which envelopes the above-mentioned sentence, and to give a little light to the nooks, voluntarily or unconsciously left in the shade."

Behring pretends that the hippocratic sentence: What produces diseases cures them, demonstrates the therapeutic principle of isopathy and that

Hahnemann cannot make himself master of it to build up his doctrine. Let us use his own words: "The meaning of the law of cure of isopathy is expressed in the most forcible manner by a phrase already found in the works of Hippocrates and which may be enunciated as follows: The same agent that can produce diseases can also cure them. "The contents of this phrase seems incredible and is often taken in a contrary sense. How many ravages it has not produced in many brains, which after their conception accepted it as a dogma, according to the expression: *Credo quia absurdum*. The rest of mysticism and superstition which survives in medicine is found in enough close relation with the ill-understood acceptance of this hippocratic phrase by the homœopathic school."

Dr. Gallavardin is of the opinion that this criticism of Behring is malevolent and ill-disposed to homœopathy. I shall be more severe than him and say that such a diatribe shows nothing but a foggy, chafed and truly unscientific spirit.

Let us press the question more closely. The true meaning of the hippocratic principle, is it in favor of isopathy or homœopathy? We shall examine this point with care. I do not know if in the time of Hippocrates the existence of miasms, of pestilence was known or even surmised; but I know well that they had not come yet to capture them and put them in bottles, and that at that time it was not possible to utilize them to cure their misdeeds. So far then there is no idea of isopathy.

When Hippocrates wrote: "What produces strangury, when it did not exist, relieves strangury when it exists; cough is provoked and carried off by the same causes; vomiting is cured by the drug that produces vomiting and diarrhœa is checked by the agent that moves the bowels," is this well understood? Did he pretend, for instance, that cantharidal cystitis was only cured by cantharis, that the vomiting of ipecac was only cured by this root, that only the diarrhœa of white hellebore is checked by this plant; in one word, that a remedy only cures the malady which is in its nature to produce? This is the less tenable for we know that in those times the attenuation of doses was not practiced, which in the cases mentioned, solely would have allowed the remedy to act favorable instead of unfavorable. Moreover, Hippocrates did not cure many cystitis, vomitings or diarrhœa, but we know that he treated the alvine flux of cholera with white hellebore. Now, cholera and hellebore are not isopathic. No isopathic bondage exists between cantharis and nephritis or an infectious cystitis, &c.

Such therapeutic facts are under the absolute dependence of the law of similars. The dictum of Hippocrates, no matter what Behring may say, is entirely in favor of homœopathy.

In isopathy, as it is usually understood, there are two things almost always intermingled, but which are nevertheless essentially different; these are vaccination and antitoxic serotherapy.

Vaccination is a therapeutic procedure by means of which we render the organism capable of resisting certain infectious diseases or intoxications, by inoculating it with the attenuated agent of this infection or poisoning. Vaccination confers immunity, for a more or less long period, because it determines phagocytosis and the formation of anticorps in the humors, particularly the appearance of the defensive proteids called antitoxines.

Antitoxic serotherapy is a therapeutic practice by means of which we render the organism capable of resisting an infectious malady or an intoxication by inoculating it with the serum of an animal previously made immune. This animal has been first vaccinated against infection, then it has elaborated the specific antitoxin, and this antitoxin serves to combat the infectious disease.

There is an essential difference between vaccination and serotherapy. The first prevents the infection, but does not cure it; it is too evident to need demonstration. Inject a few pathogenic microbes into a body already infected by parasites of the same species, it will not be altered in the least. I ask now, what influence, what bacilli, more or less in number, can exert any influence in an organism already invaded? Serotherapy is capable of preventing the infection and of curing it. The serum of Roux prevents and cures diphtheria. The vaccinating agent is powerless against the microbe and its products, all this is identical; the antitoxic substance has the remarkable property, when it becomes intermixed with them, to neutralize their effects. For vaccination, we make the animal produce the opposing matters to hinder the development of microbes; in serotherapia one injects those that have been elaborated by another organism. These act as a remedy, that is as a modifier of the economy in the sense of cure.

Isopathy resides wholly in vaccination. Its role in therapeutics is very restrained, it is limited to preservation. It does not cure the developed disease. Its utility is then very restricted. Who would consent to run the risk of seriously catching an infectious disease by allowing to be vaccinated, when he could have the chance of being protected against the pathogenic microbe and escape the infection?

Serotherapy is not isopathy. In serotherapy the medicinal agent is the specific antitoxin, but this antitoxin, elaborated by the organism under the attack of the microbe and its toxin, is not at all like them; far from being the same thing they are generally considered contrary to them. Better still, this antitoxin may be produced by any substance whatever, animal, vegetable or mineral, developing in the economy morbid effects analogous to those evolved there by the microbe. Therefore, it is wrong to pretend that here the medicamental and the pathological cause are of the same origin. Equally false is the law of Lux, who says that all inoculable diseases include in their own substance of inoculation the appropriate remedy for their cure. If he had said, the remedy appropriate for their preservation, he would have been less wrong, but never right, for this remedy is not contained in their proper substance of inoculation; on the contrary it is elaborated by the organism from all detached fragments or substances.

Give to a healthy individual hydrophobin and he may not contract rabies if bitten by a rabid dog; give him variolin and he may not get variola in the midst of an epidemic, but give variolin to one suffering from small-pox, tuberculin to a tuberculous patient, scarlatin to one afflicted with scarlatina, and time and effort will be lost, for it is a false therapeutic manœuvre, and the results will be absolutely null. Vaccination preserves but does not cure.

Behring wishing to show the fundamental difference between homœopathy and isopathy, says: "Homœopathy like allopathy, is a purely symp-

tomatic therapeutics, while isopathy, therapeutically speaking, does not deal with the symptoms of disease." This is a German quarrel which Behring seeks with the school of Hahnemann. Even to practice isopathy is at least necessary to know the disease; it is indispensable to furnish to a given pathological state the corresponding pathogenic agent. And how can we attain that without the examination of the symptoms? All the bacteriological or laboratory analyses cannot be appreciated and applied, but after the authentication of the morbid signs, and this only to confirm the diagnosis. Symptomatic therapeutics and the therapeutics of the disease, is all one thing, for one at first cannot recognize the disease but by the symptoms. Is it legitimate to establish a difference between a whole and the ensemble of its parts?

The fundamental distinction between homœopathy and isopathy is then not there. Where is it? In the mechanism of their intimate action. Isopathy constituted by vaccination preserves but does not cure; we have shown that very plainly. It is universally known that homœopathy preserves and cures. Quinine prevents and cures ague; arsenic, copper and veratrum album prevent and cure cholera. Examples of this kind we could give by the hundreds. There is a capital difference between the two therapeutics and certainly in the comparison homœopathy has never yet come out the loser.

Behring accuses the homœopathic school of mysticism and superstition because it invokes in favor of its doctrine the authority of Hippocrates, "What produces diseases cures them." I think I have strictly proven that Behring's reasoning is more nebulous, more false, and more absurd than Hahnemann's. If the hippocratic sentence has caused so many ravages in the brain of our opponents, it has not been so in ours, for we have always clearly understood the principle *similia similibus curantur* and lucidly deduced the results it allows. By interpreting in favor of Hippocrates, Behring has taken a bladder for a lantern. One more word about the way a homœopathic cure is effected. Is it by similars or contraries? The following fact is indisputable: all cures are obtained by phagocytosis and by the formation of the specific antitoxin. The phagocytory phenomena, whether created by the economy or under the influence of the microbe and poison or the remedy are always identical, and certainly we have no contrary effects here. As long as we do not penetrate the intimate nature of the antitoxins, the question put above will remain unanswered. If antitoxin, as its name indicates, is really the contrary of the microbe and its poison, the cure is effected by contraries; if it is analogous to the microbial toxin, as there is a tendency to admit in our days, then the cure is made by similars. As long, again, as the similar or contrary character of antitoxin in relation to toxin is not clearly established, the problem will remain insolvable.—Dr. Villechauvaix,, *Revue Homœopathique, Française*.



DR. PEMBERTON DUDLEY.

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A PROVING OF QUININE SULPHATE.

BY

FRITZ C. ASKENSTEDT, M. D., LOUISVILLE, KY.

Professor of Pathology and Physical Diagnosis in Southwestern Homœopathic Medical College; Visiting Physician to Louisville City Hospital; to the Methodist Deaconess Hospital, Louisville, and to the German Baptist Orphans' Home, Louisville; President Kentucky State Homœopathic Medical Society; President Falls Cities Homœopathic Society.

(Read before the Southern Homœopathic Medical Association, October 22d, 1906.)

SOMETIME and somewhere I read a statement that a leucocytosis is induced by the internal administration of quinine. As quinine is a common remedy for malarial fever, which disease does not of itself produce a polynucleated leucocytosis—a fact which I have found of considerable value in reaching a diagnosis in certain fevers—I was desirous to see the above statement regarding quinine either demonstrated or refuted. Partly on this account and partly from a desire to make a homœopathic drug proving, elucidating the action of quinine upon the metabolism of the body by analyses of the blood and urine, I resolved to attempt a brief proving upon myself of this much abused remedy. That a proving of this kind, undertaken while actively engaged in the practice of medicine, necessarily must be confined within narrow limits, and therefore could be but a small fragment of what a satisfactory proving ought to be, is obvious. Nevertheless I hope that because of a few unusual features introduced it will add a straw to the stock of common knowledge regarding the pathogenesis of

quinine, and trust that it will stimulate others to greater interest in the pathology of drug provings.

Being in good health and not accustomed to the use of quinine, I considered myself an excellent subject for the proving, and during the entire time conformed closely to my previous habits, both as to diet and exercise. My pulse, on sitting, is normally 72; my temperature 98-98.3°. I never use alcohol or tobacco, and am not accustomed to the use of coffee, tea or drugs.

The first dose was taken July 5th at 2.30 P. M., and consisted of 8 grs. of quinine sulphate. At 7.30 P. M. another 8 grs. were taken. About 9 P. M. a sense of fulness in the ears with tinnitus, resembling the sound of hammering on anvils from a long distance, was observed. There was also a sense of exhilaration, the excitement being so marked as to be noticed by others. This was attended by an impaired reasoning power, so that intelligent conversation required special effort. The temperature taken at 10.30 P. M. was 97.4°, the pulse 69, but no sense of depression or chilliness was felt. There had been some griping in the bowels during the day, but the usual evacuation at night was missed. The sleep during the night was good, and I had a more comfortable feeling on rising in the morning.

JULY 6TH. At 7.30 A. M. the temperature was only 96.6°, the pulse 63.

At 8 A. M. I took 8 grs. of quinine.

At 10 A. M. the temperature was 97.7°, the pulse 72.

Except for the fulness and ringing in the ears, I felt well.

At noon a hæmoglobin estimate showed a loss of 10% from previous normal amount.

1 P. M.: Pulse 73, temperature 98°, at which point it remained during the rest of the day.

1.30 P. M.: 8 grs. of quinine were taken.

10 P. M.: Another 8 grs. At this time I experienced a sensation of tremulousness and a certain lack of self-confidence. There was also a slight frontal headache. The bowels had been griping a few times during the day, but all natural effort to relieve the constipation failing, I felt compelled to use an enema, which finally brought relief. After this day the bowels moved regularly and normally.

JULY 7TH. A sense of fear, from a dream of murder, awakened me at 4 o'clock in the morning, and I could not go

to sleep again. When well, I would occasionally lie awake an hour or two at night.

7 A. M.: Pulse, 71; temperature, 98°

8 A. M.: Took 8 grs. quinine.

1 P. M.: Hæmoglobin reduced 15% below normal, and a loss of 532,000 red cells to cmm.

2 P. M.: 4 grs. quinine.

4 P. M.: Pulse, 79; temperature, 98.4°

Having been kept busy all evening, I took 4 grs. quinine at midnight. A dull frontal headache and ringing in the ears were with me all day. Felt "bum."

JULY 8TH. Slept well from 12 to 6 A. M. Felt well on awakening.

9 A. M.: 4 grs. quinine. Pulse, 69; temperature, 97.5°.

2 P. M.: 4 grs. quinine. Found a white coating on the tongue. Mental powers regained; very little tinnitus. An occasional pain, rather sharp, in forehead.

9.30 P. M.: 4 grs. quinine. Pulse, 68; temperature, 97°.

JULY 9TH. Slept fairly well during the night.

8 A. M.: 4 grs. quinine. Pulse, 72; temperature, 98°.

2 P. M.: 4 grs. quinine. Felt well.

7 P. M.: 4 grs. quinine.

11 P. M.: Pulse, 68; temperature, 97.6°.

JULY 10TH. Slept well.

7.30 A. M.: 4 grs. quinine.

6 P. M.: 4 grs. quinine. Tongue clean.

11 P. M.: 4 grs. quinine. Pulse, 67; temperature, 97°.

JULY 11TH.: Slept well.

8 A. M.: 4 grs. quinine.

6 P. M.: Pulse, 70; temperature, 97.4°.

11 P. M.: Pulse, 70; temperature, 97.4°. Red cells and hæmoglobin restored to nearly normal.

JULY 12TH. 9 A. M.: Pulse, 76; temperature, 97.8°. Hands broken out with prickly heat.

2 P. M.: Pulse, 70; temperature, 98.4°.

7 P. M.: Pulse, 69; temperature, 98.2°.

JULY 13TH.: 11 A. M.: Pulse, 72; temperature, 98°. Hands broken out with prickly heat and face with eczema

JULY 14TH. Last urinary analysis made and observations discontinued on account of the presence of the eruptions. These eruptions recur, to a greater or less extent, nearly every summer I have spent in this climate, and are brought on directly

by exposure to heat and sunlight. This was the first appearance of the eruptions this year, and proved of unexpected severity.

During the entire proving the appetite remained as usual, and the physical exercise taken was moderate. I lost about one pound in flesh, weighing 147 pounds, but as during the six preceding weeks I lost at the rate of about half a pound per week—probably due to lessened appetite during the warmer season—I attached no significance to it.

The most important details of the analyses of the blood and urine I have arranged, for convenience of comparison, in the form of a chart. (*See chart.*) It will be observed that the analyses are divided into three groups: First, those preceding the proving, showing my normal condition; second, those under the first and heavy doses of quinine, intended to show its primary effect; and third, those under the later and smaller doses of the drug, showing a return to normal, and, in some instances, a reaction. The end and average of each stage is indicated with figures in red ink. The blood for the analyses, except for the last count of red cells, which was done at 11 P. M., was always taken just before noonday lunch; while the urine was collected during the twenty-four hours beginning with the morning of the date recorded upon the chart.

For the sake of accuracy I will mention the methods used for obtaining the recorded estimates.

The total solids were estimated with Haeser's coefficient, 2.33, which is the one most generally in use. I am satisfied, however, that the figures it gives are too high, but as we are here interested in relative rather than absolute values, it serves our purpose.

The quantity of urea was determined with the Doremus-Hind's ureometer.

For the determination of uric acid the purinometer devised by Dr. I. Walker Hall was used, considering arbitrarily nine-tenths of the nitrogen estimate obtained as uric acid nitrogen. This has, in my hands, proven a very satisfactory method when there is no serum-albumin present.

The amount of phosphoric acid was determined with the uranium nitrate test.

To the chlorides I did not at first attach much importance. The estimates were made with silver nitrate and centrifugalization, the results being compared with a standard I have pre-

URINE													BLOOD												
RATIOS.													RATIOS.												
Date.	Mean Atmospheric Temp.	Quinine, grs. *	Quantity, c. c.	Reaction.	Total Solids, grs.	Urea, grs.	Uric Acid, grs.	Phosphoric Acid, grs.	Chlorides, grs.	Uric Acid to Urea.	Phos. Acid to Urea.	Uric Acid to Phos. Acid.	Sediment.	Red Cells.	Hæmoglobin, %.	Color Index.	White Cells.	Small Lymphocytes.	Large and Transitional.	Polynucleated Leucocytes.	Eosinophiles.				
June 27	80°F.	0	500	Acid	560	240	3.7	29.4	39	1:65	1:8	1:8		4,382,000	90	0.91		30	3	66	1				
" 29	84°F.	0	500	Acid	560	240	3.7	29.4	39	1:65	1:8	1:8		4,784,000	88	0.92	25	4	70	1					
" 30	82°F.	0	500	Acid	560	240	3.7	29.4	39	1:65	1:8	1:8		4,784,000	92	0.92	25	4	70	1					
July 1	82°F.	0	450	Acid	504	223	3.7	23.3	75	1:60	1:9½	1:6½			90		8.500								
" 2	80°F.	0	550	Acid	625	264	3.8	30.7	97	1:70	1:8½	1:8	Amorphous and spheres of Urates.												
" 3	77°F.	0	500	Acid	563	242	3.7	27.8	70	1:65	1:8½	1:7½			88		6.500								
" 5	76°F.	0	500	Acid	563	242	3.7	27.8	70	1:65	1:8½	1:7½			92		7.800								
" 6	75°F.	0	500	Alkaline	630	222	5.5	27.1	181	1:39	1:8	1:5	Amorphous Phosphates.		80		8.400								
" 7	76°F.	0	700	Acid	644	184	4	19.5	217	1:46	1:9½	1:5		4,400,000	75	0.85	9,400	23.5	2.5	72.5	1.5				
" 8	78°F.	0	600	Slightly Acid	606	209	3.4	18.6	163	1:61	1:11	1:5½													
" 9	77°F.	0	600	Acid	605	205	2.9	31.6	139	1:70	1:6½	1:11													
" 10	78°F.	0	650	Acid	598	262	3	28.2	87	1:87	1:9½	1:9½	Spheres of Urates												
" 11	82°F.	0	Slightly Acid	600	238	3.6	24.8	99	1:65	1:9½	1:7			4,784,000	88	0.92	25	4	70	1					
" 12	80°F.	0	620	Acid	594	240	3.5	29.2	120	1:68	1:8	1:8½													
" 13	79°F.	0	620	Acid	600	247	3.4	28.5	102	1:67	1:9														
Secondary Effect. Primary Effect. Normal.																									

viously adopted after repeated experimentation. This can afford only a rough estimate, but the considerable excess uniformly obtained during the taking of quinine proves its practical value.

Neither albumin nor sugar was detected at any time.

The blood tests were carried out with the Thoma-Zeiss' cytometer and the Fleischl's hæmoglobinometer.

I am fully aware that much of the action of a drug depends upon the idiosyncrasy of the prover, and that some of the apparent effects may have been accidental, so that no symptom of a single proving is of value until verified; nevertheless since the mutual relation of symptoms and their order of sequence observed in individual provings furnish a better basis for the study of drug action than does the composite picture of many, and since this proving seems in general pretty well supported by our knowledge of the action of the remedy upon others, it may not be amiss to attempt a brief survey of the drug action as obtained in this particular instance.

A comparison between the various analyses will show that after some days a tolerance, and in some instances a reaction, to the drug was acquired. The most marked effect of quinine was shown upon the blood, causing an immediate and rapid decrease of the red cells, with even a greater reduction of hæmoglobin. The very rapid reduction of red cells, which was attended by a corresponding increase in the elimination of chlorides—probably from a destructive action upon the blood plasma—leads me to infer that the action of quinine upon the blood is direct and hæmolytic rather than inhibitory upon the blood-making organs, though possibly it may be both. The white cells manifested a slight tendency to polynucleated leucocytosis, but it must be admitted that the counting of these cells was not made sufficiently often to prove of marked value.

The quantity of the urine was considerably increased during the second day, and showed an alkaline reaction, but there was a rapid return to normal, both in quantity and reaction. The influence of the atmospheric temperature upon these variations could have been but slight, for the mean temperature did not vary over 9° F., as the chart will show. The urea showed a perceptible decrease, which perhaps was retarded by the destructive action upon the blood, but rose abruptly on the sixth day. This decrease was undoubtedly due to a katabolic disturbance and not to a lessened appetite, for there was a

simultaneous decided excess in the excretion of uric acid—not to mention the abundance of chlorides—and an associated sub-normal temperature. The uric acid excess amounted to fifty per cent. on the second day, and showed a steady decline thereafter until, on the fifth day, the minimum was attained, after which time the excretion gradually rose to the normal amount. This modification can not properly be accounted for by Haig's theory of increased elimination through greater alkalinity of the blood, for in this instance the uric acid excretion presented a uniform curve, while the acidity was irregular. Nor did it manifest any correspondence, inverse or otherwise, to the elimination of urea. Phosphoric acid showed a gradual reduction for a few days, under quinine, with an abrupt rise on the fifth day. An interesting feature is the prompt excess observed in the excretion of chlorides, which reached its highest point when urea was lowest, but, like the other solids, returned to the normal limit before the last dose of quinine was taken. There was nothing in the diet to account for such an increased elimination. Assuming the view to be correct that an increased elimination of chlorides, when not dependent upon an increase of salt in the diet or absorption of an exudate, indicates an augmented destruction of circulating proteids, all the other changes in the urine mentioned—the reduction of phos. acid and urea, and the excess of uric acid—may find an apparent explanation in the lessened oxidation incident to a reduction of the number of red cells, and, if Rossbach's observation is correct, also to a firmer union between the oxygen and hæmoglobin of the blood, produced by the presence of quinine. Just how far the retardation of the functional activities was directly due to these blood changes is difficult to determine; but a reference to the chart will show that the time of greatest impregnation of the blood with quinine and the maximum of blood destruction, as indicated by the lowest hæmoglobin percentage and highest chloride elimination, was *preceded* by the greatest excess of uric acid; and knowing the specific effect cinchona has upon the liver, spleen and nervous system, it can not reasonably be supposed that the primary action of quinine is confined to the blood alone. Furthermore, oxidation of uric acid into urea seems independent of the amount of oxygen in the blood, for in such anæmias as chlorosis and Hodgkin's disease the uric acid excretion is normal or below. The obscurity in which the anabolic and katabolic changes of nitrogen are involved forbids

our tracing very far the changes which have led to the greatly reduced ratio between uric acid and urea. We know, however, that the formation of urea takes place in the liver, which is also responsible for the conversion into urea of a certain amount of the uric acid in the blood. We have also good reasons for believing that uric acid is a remote product of the breaking down of cell nuclei (endogenous uric acid), and that a large amount is absorbed as such from the alimentary tract (exogenous uric acid). Were the excess of uric acid which we have noted in the proving due to an increased destruction of cell nuclei, we should also have found an excess of phos. acid, which is a collateral product with uric acid in the breaking down of nuclein. Since an average ratio of uric acid to phos. acid of 1 to 5 was found, instead of an average ratio of 1 to $7\frac{1}{2}$, as observed in health, and since the phos. acid excretion at the same time suffered an absolute decrease, we must look elsewhere for the cause of the uric acid excess. With the stability noticed in the amount of the uric acid excreted before the proving began and the diet remaining practically unchanged, we are led to the inference that the uric acid excess is to be attributed to a faulty katabolism of the liver, whose inability, under quinine, to meet the demands for the conversion of effete nitrogenous substances into urea is shown by a diminution of the elimination of urea from a normal average of 242 grs. to an average of 205 grs., and a reduction of the ratio of uric acid to urea from 1 to 65, to 1 to 43.

In summing up, then, the action of quinine elicited through this proving, we find, on the one hand, a destruction of certain of the blood elements; and, on the other, a lessened oxidation and a disturbance of the katabolic functions of the liver, attended with various nervous phenomena.

Quinine has never been a popular remedy in the hands of the homœopathists—this perhaps because of its limited provings—and we know as yet but little of its therapeutic action; but, guided by the law of similia, I should infer from the proving before us that its sphere of usefulness will be found not only in acute infections, but also among those general disorders dependent upon the accumulation of the products of incomplete metabolism.

Little is as yet known regarding the toxic effect of an excessive accumulation of these intermediary bodies, but the progress of pathology during the last decades has largely been in

the direction of establishing a certain relationship between these effete substances and chronic diseases. That the combination of sulphur with cinchona known as quinine sulphate should be better adapted to chronic conditions than cinchona alone, no homœopathist will doubt.

The similarity of the syndrome manifested by this drug proving to chronic interstitial nephritis was to me a surprise, and full of interest. We have noticed an excessive quantity of urine, containing an absolutely and relatively small amount of phos. acid and of urea, with excess of uric acid, a rapid loss of red cells, with subnormal temperature, slow pulse and headache; and if to this we add digestive disturbances, amaurosis and albuminuria, which are well-known results of heavier drugging with quinine, we have a classical picture of interstitial nephritis, which merits thorough investigation.

In certain cases of neuroses, due to defective oxidation and elimination, with small excretion of urea and an excess of uric acid, with headache, tremulousness, lack of self-confidence, anæmia, constipation, slow pulse and subnormal temperature—a combination of symptoms often met with—quinine in homœopathic dilutions should prove an effective remedy. Our old-school *confreres* have long regarded it a favorite prescription for their cases of functional nervous disorders.

It might seem like stretching a point unduly to ascribe unto quinine the facial eczema and eruption of prickly heat upon my hands, which followed the proving, and from which I have suffered, more or less, nearly every summer during sixteen succeeding years. But that eczema and other skin eruptions are largely due to a disturbed liver function and diminished oxidation (see "A System of Genito-Urinary Diseases, Syphilology and Dermatology" by Prince A. Morrow, Vol. iii, pages 245 and 246) is generally recognized by dermatologists; and since the eruption proved of unusual severity, while the exposure to the sun, which is always its immediate cause, was less than usual, it does not seem unlikely that quinine in this instance acted as a predisposing cause. Moreover, while no skin symptoms are recorded in our homœopathic materia medica, such eruptions as urticaria, erythema and ecchymoses, are mentioned in old school works as occasional results of the administration of quinine; and Bergeron, Chevallier, Layet, Hirt and Weightman describe cases of eczema due to quinine in workmen engaged in its manufacture (see "Twentieth Century

Practice," Vol. iii, pages 405 and 406, and Vol. xix, page 470).

The reputation quinine has long had as a remedy for malarial fever renders a comparison of symptomatology always of interest. The oligocythæmia, the diminished oxidation, the sub-normal temperature, the slow pulse, the headaches, point to an interfebrile period of malaria. Possibly had the proving been pushed to a greater extent, an occasional pyrexia might have developed, for "quinine fever" has been recorded by members of both schools.

In closing I can not refrain from a word of warning with regard to the abuse of large doses of quinine. Their disorganizing action upon the blood, and the embarrassment they incur upon certain metabolic processes must greatly hamper nature's efforts at repair, which in inflammatory conditions are further embarrassed by a negative chemotaxis induced by quinine, as Metchnikoff and others have observed. That toleration of quinine is not easily acquired by all persons is readily proven by those malarial patients who after a prolonged treatment with this remedy still remain so sensitive to the use of even very small doses that hæmoglobinuria will result. What proportion of patients have, to your knowledge, become so immunized to quinine as not to detect a tinnitus as a result of the administration of heavy doses! Quinine in massive doses may have its legitimate uses, and when intelligently directed may accomplish brilliant therapeutic results, but its reckless and haphazard employment, be it by a physician or layman, should be persistently discountenanced.

THE MICROSCOPIC CHANGES PRODUCED BY THE X-RAYS IN THE OVARIES OF RABBITS.—Specht (Breslau). Halberstadter was the first to study this subject in the early part of last year, and was led thereto by observing that the Rontgen rays caused azoosperma and atrophy of the testicle. He found that the ovaries become much smaller, the Graafian follicles atrophy and the promordial follicles show distinct evidences of degeneration. The pathological material obtained by Halberstadter was placed at the disposal of Specht, and forms the subject of his present article. In addition to verifying the above mentioned changes, Specht found that the interstitial tissue also is affected, its cells become smaller and poorer in protoplasm. In another series of cases Specht found even after one to two hours exposure to the rays these changes could be recognized.—*Arch. f. Gyn. Bd.* 78, 458.

THERAPEUTICS OF NATRUM MURIATICUM.

BY

EDWARD FORNIAS, M. D., PHILADELPHIA, PA.

ALL homœopathists of acknowledged reputation, the world over, have employed NATRUM MURIATICUM with honor to themselves and benefit to their patients; the only discordant notes as to its merit being of disputable and inimical origin. Even Hughes, who, in the second edition of his Pharmacodynamics, page 409, says, "*I really know nothing myself of the virtues of Salt*,"—who held the reproving of the Austrian Society as disappointing—and who, in the same edition of his work, gives us an antiquated clinical history of the drug; later on, in the third edition, page 561, with a riper experience, he prescribes NATRUM MURIATICUM. 30 for *defective nutrition*, with degenerative changes, mental depression and suspected abdominal disease, thus accepting unwillingly the doctrine of *drug-dynamization* and learning something more of the virtues of salt.

Hahnemann, in his *Chronic Diseases*, says, *pure salt, when dynamized*, is one of the most *powerful anti-psoric remedies*; and according to Bœnninghausen, as in CALCARIA OSTREARUM and SILICA, its sphere of action continually enlarges, the higher the dynamization is carried. My beloved preceptor, Dr. Farrington, in his brilliant and forcible manner, emphatically asserted before all his classes that "when we potentize a drug we no longer find we have to depend upon the ordinary laws of dietetics, hygiene or chemistry, but we step into a realm which is distinct from the laws of chemistry and of physics." "Medicines are then no longer subject to the coarser laws."

James Compton Burnett, who has given us in his brochure on NATRUM MURIATICUM the most lucid clinical history of this drug, states that "to believe in salt as a remedy is almost synonymous with believing in the doctrine of drug dynamization, and that dynamization is no myth, but a *fact in nature* capable of scientific experimental proof.

Be this as it may, studied in a general way and by reference to its verified symptomatology, it will be seen how closely indicated it is in almost all the cases in which it has been given with unequivocal success. True enough, the symptoms of all diseases do not always conform to systematic descriptions.

because of their great variability according to the soil, intensity, distribution and complications of the affections. This fact, however, will never present any difficulty for us, who, while knowing the nature and evolution of the disease, treat our cases symptomatically. The therapeutic problem has been, is and will always be solved by the *similimum*, no matter what the disparity of the case may be. We do not treat diseases, but patients.

The plurality of NATRUM MURIATICUM indications point chiefly to *diseases of the blood* and *diseases of nutrition*, next to *digestive, circulatory* and *respiratory troubles*, and finally to certain *nervous* and *cutaneous disorders*. I shall discuss them in the order here given.

Diseases of the blood and nutrition.—It is in *anæmia* both, symptomatic and essential, and in *mixed toxæmias of the scorbutic type*, where we often find this remedy indicated. The profound alterations of nutrition observed during the course of those diseases and calling for NATRUM MURIATICUM are characterized by the very verified symptoms recorded in the pathogenesis of this drug. Blood changes, extreme debility, general torpor, cardio-vascular murmurs, shortness of breath, tumefaction, infiltration, sallow, dusky skin, faulty metabolism of digestion, and an apathetic and despondent state of the mind, with absolute aversion to exercise or motion, are the phenomena constituting the syndrome, both pathognomonic of these diseases and characteristic of the remedy.

NATRUM MURIATICUM has been frequently used with much benefit in those *chronic cases of CHLOROSIS*, occurring in cachectic persons with *distressing circulatory phenomena* (palpitations, fluttering, oppression, anxiety) and an *amenorrhœa* accompanied by general atony, leucorrhœa, sexual debility and deep sadness. In all the cases of *anæmia* in which this drug has been so efficacious, the sadness has been profound or with alternatives of irritation, the bowels thoroughly confined, with contraction of the anus, and the general and cardiac pulsations excited by the least exertion or motion.

The nervous symptoms of *anæmia*, as well as its dyptic troubles, cardio-vascular disorders, cachectic œdemas, emaciation and fever, may also indicate this drug in *progressive pernicious anæmia*, which is held by some a *severe type of chlorosis*, following repeated pregnancies, privation and fatigue. It has, likewise, rendered some good services in *splenic, ganglionar*

and *medullar leukæmia*; severe, morbid states, characterized by permanent leucocytosis, with enlargement and proliferation of the lymphoid tissue of the spleen, lymphatic glands and bone-marrow, and embracing many of the symptoms of *essential anæmia*.

Those who have had opportunity to observe and treat *scurvy* claim that, although inferior to PHOSPHORUS and MERCURIUS and even CARBO VEGETABILIS, NATRUM MURIATICUM is nevertheless indicated and useful in some cases where, side by side with the *anæmia*, the nervous system loses strength, the weakness is progressive, the circulation failing, the emaciation marked, *the tongue becomes mapped, the breath offensive and the gums spongy, swollen and easily bleeding* (AMMONIUM CARB., NITRIC ACID). In such cases, in fact, where the peculiar, *sallow and dusky tint of the skin and the attacks of suffocation* are due to the deterioration of the blood and the *syncope* largely attributed to fatty degeneration of the cardiac muscle, also covers it well the *mental apathy and dejection*, as well as the articular and peri-articular pains and the constipation. It is claimed further that the gums are especially inclined to bleed when the teeth have not been kept free from tartar, indicating that a *lithimic process* is also at work. It has, certainly, proved curative in *simple scorbutic states*, in cachectic subjects, with soft, bleeding gums, loose teeth, ulcerated mouth, very fetid breath and constipation. In connection with the *lithimic process* it should be borne in mind that while the quantity of *uric acid* in the urine is diminished during an attack of gout and in most chronic diseases, it is increased after an attack of gout, in fevers, leucocythæmia, pernicious anæmia and leucocytosis from any cause.

In *malaria*, now proved to depend primarily upon a protozoic amœboid micro-organism (*plasmodium malariae*), which develops within the red blood-cells of the affected person, NATRUM MURIATICUM has a well-recorded clinical history. It is in the *intermittent form of malaria*, as well as in *malarial cachexia*, where it has been more frequently employed. In the *intermittent manifestations of advanced cases* this drug is one of our principal remedies, especially *after the abuse of quinine*, or after living on, or near water or marshy regions, or near recently turned-up soil. *The paroxysm is usually complete*, occurs in the forenoon, is preceded by a dread of the attack, and composed of a long predominant chill, intense heat and

profuse sweat. Thirst and a beating, throbbing headache, increase with the heat. The thirst, which usually continues through all the stages, may subside with the sweat, and the headache is sometimes so severe as to cause stupefaction and occasionally continues after the sweat, but usually the sweat relieves not only the headache but all the pains present. The persistent headache and vertigo in such cases are the result of the intense meningeal hyperæmia that sometimes occurs. *After the paroxysm* the debility is so great that the patient wishes to remain in bed, for he is not able to get up or move about. *During the apyrexia*, there is frequently a *morning headache after awakening*, the languor continues, the *fever blisters* persist, the patient sweats easily from any exertion, there is anorexia or bulimia, as well as *constipation*, the urine deposits urates in abundance and the *mental apathy and sadness* may remain as a valuable indication of NATRUM MURIATICUM.

Malarial cachexia, which, I think, should be called *malarial anæmia*, is principally the result of repeated maltreated attacks and comprises a syndrome which finds its parallel in the verified symptomatology of NATRUM MURIATICUM, for, as we well know, the prominent phenomena of this cachexia are *marked anæmia and malnutrition with certain cardio-vascular disturbances and enlargement of the spleen and liver*, and, of course, if the case is associated with *cinchonism*, very few drugs can take the place of this remedy. In tropical countries it is frequently noticed that patients who are already suffering from *malarial anæmia* are peculiarly *susceptible to scurvy*, if exposed to causes tending to produce that disease, and many interesting cases of the kind have been reported cured by NATRUM MURIATICUM.

Of the *diseases of nutrition*, successfully treated with NATRUM MURIATICUM, I may mention *rheumatism, gout and diabetes*. In America we have not considered much the indications given by Jahr and Bœnninghausen for this drug in *rheumatism and gout*, but, in Europe, our confreres have utilized them with remarkable success. NATRUM MURIATICUM has *articular and periarticular pains* in and about almost all the joints of the body (shoulder, wrist, hands, fingers, hips, thighs, knees, calves, feet, instep, toes and big toe); they are of a *drawing, tearing or contusive character*; they are renewed or increased at the approach of cold, damp weather, or in a recumbent position, even in the daytime, and always worse towards

noon; they are relieved when sitting up, and by hot applications.

This remedy has been efficacious in *rheumatic and gouty affections* of anemic, cachectic subjects, with hepatic dyspepsia, gravel and constipation, or in chlorotic females with amenorrhœa, acrid leucorrhœa and mental depression, especially when the pains are of a tearing, stinging and remittent character, and attended by painful contraction of the tendons or tension in the knee-bends. It has been recommended in *chronic rheumatism*, when the limbs become emaciated, remain stiff and numb, or swollen and painful to touch, and always worse towards noon—or when, all the muscles of the body, principally those of the upper and lower limbs, are very painful during motion, as if the flesh had been detached by blows, and at night the patient is obliged to sit up in bed to find relief. The same drawing, tearing and stinging pains and modalities have indicated this drug in many cases of *normal gout, especially of the wrist, fingers and toes*. The symptomatic totality of the reported cases of this group comprises: *Red tumefaction of the metacarpal, and of the metatarsal of the big toe*, with tearing and stinging pains, when writing, walking or standing; *arthritic swelling of the metacarpal joints*, with stiffness and lameness, especially when after the attack the finger joints move with difficulty, and there is a sensation of numbness in the limb; *drawing pain in the right thigh* extending to knee, or in the knee when sitting, with a contractive tension in the calves. Spanish doctors have reported several cases of *gonorrhœal rheumatism* cured by NATRUM MURIATICUM, in which the concomitants were a gleety discharge, imperfect nutrition, constipation, gravel and a hypochondriac mood, and a very rare case *with asthenopic symptoms*, in a masturbator, was published by Dr. Galuzo, of Cuba, many years ago.

When we consider the *imperfect nutrition of the diabetic* and the common association of *diabetes* to gout, rheumatism, gravel, biliary lithiasis, hepatic congestion and malaria, affections in which NATRUM MURIATICUM has rendered good services, we should not wonder at the persistency with which European homœopathists recommend it in *diabetes*, a disease where the non-compensated emaciation resulting from the losses, the inexplicable weakness and muscular fatigue notwithstanding the appetite, the dyspeptic troubles, the *polyuria*, the polydipsia, the dryness of the mouth and skin, the pruritus

and dermatoses, the cedemas, the gingivitis, the thrush, the rheumatoid pains, facial neuralgia or sciatica, the amblyopia, and the cerebral phenomena, which, according to Bouchard, are due not only to acetonemia, but to dehydration of the nervous centres, are all so characteristic both of drug and disease. Seldom do we find such an exact correspondence between a pharmacodynamic and pathological process; precise, at least, for those who, while knowing disease-development and behavior, do not neglect the study of drug-action. Then, in this respect, we should bear in mind that the prognosis of *diabetes mellitus* becomes often serious on account of the complications, principally consumption—that the excessive excretion of urea is an unfavorable sign, and that it is almost exclusively in *lean diabetes* where NATRUM MURIATICUM will be found indicated.

NATRUM MURIATICUM has also been employed and recommended in azoturic diabetes, a morbid state distinct from *azoturia* and dependent upon defect of nutrition, with uricacidemia, *polyuria*, nervous troubles, adynamia, emaciation, cachectic cedema and usually ending in *pulmonary phthisis*. I have used it, more than once, in *oxaluric diabetes*, a dyscrasia of the young, especially the children of gouty parents, resulting from a faulty metabolism and characterized by fermentative dyspepsia, palpitations, oppression, extreme debility and great nervous irritability.

In *chronic diseases of the respiratory and circulatory apparatus*, NATRUM MURIATICUM has an excellent clinical history, and recent researches about this salt may lead us to a better understanding of its pathogenesis. It has been successfully employed and highly recommended in *nasal catarrh*, *chronic bronchitis*, *pulmonary catarrh* and *pulmonary phthisis*, and in all these affections the liability to catch cold again should always be remembered.

In *nasal catarrh*, when *anterior*, the hypersecretion with alternatives of dryness, the complete loss of taste and smell, and the tumefaction and scaly eruption in the nostrils, have been the chief indications; when *posterior*, on the other hand, the nares are usually dry; but the *hawking in the morning* to dislodge the accumulated mucus in the throat is persistent and annoying. In *chronic, inveterate, bronchial and pulmonary catarrh*, the tickling cough, with beating headache, rawness and soreness in the lungs, stitches in the liver, involuntary urina-

tion and hour of aggravation have often been important elements of decision in favor of this drug. In the *senile forms*, however, the cough is attended by rattling in the chest, difficult morning expectoration of yellow or blood-streaked mucus, dyspnœa and extreme prostration.

What I have said in regard to diabetes may be properly applied to *phthisis pulmonalis*; in fact, it is impossible to examine and study the symptomatology of NATRUM MURIATICUM without agreeing as to its adaptability to some cases of the latter affection. In the first place, leaving out the tubercular lesion and its physical signs, we have the *dystrophic process*, with the anæmia, emaciation, debility, breathlessness on the least exertion, intercostal stitches, palpitations and polyuria; then the *digestive troubles and the respiratory difficulties*, which include hoarseness, tightness, oppression, dyspnœa and a distressing, paroxysmal cough, with muco-purulent sputa and vomiting of the ingesta; a cough that only allows the dorsal decubitus, and is worse in the evening after lying down, or when lying on either side, especially on the left; and finally the *hectic fever*, with its evening exacerbations, profuse sweats, malleolar œdema and extreme prostration. Syndromes all of mutual relation and indicative of the value of NATRUM MURIATICUM in this much dreaded malady, a malady often excited by those constitutional, denutritive processes in which this drug has rendered excellent service.

In *diseases due to circulatory disorders*, we find NATRUM MURIATICUM agreeing with some cardio-asthenic and sthenic conditions. In *functional troubles of the heart* the strong anxious palpitations, with every motion of the body and particularly when increased while lying on the left side, the fluttering motion with a faint feeling, the cold sensation about the heart, the oppressive breathing, and the intermittent cardiac and radial action, have been the leading indications, which become more positive when they occur in *dyspeptic subjects*, with acidity, fermentation, obstructed flatulence, constipation, and relief of the epigastric distress by pressure, just the opposite of LACHESIS. It is also indicated when the *abdominal distention* is attended by tumultuous palpitation and an aching as if the pressure came from the abdomen and compressed the heart. When the *circulatory symptoms* of this drug comprise a *jerking and darting pain in the precordial region*, with radiations of a tingling character in the arms and fingers, which be-

come numb, an anxious melancholy, and foreboding and dread of such an attack of pain, then it may find a place in the treatment of *angina pectoris*, as it has found it in *cardio-asthenic* conditions due to overwork of the organ and *secondary to splenic disease*.

NATRUM MURIATICUM has also proved of value in those cases of *hypertrophy of the heart*, caused by palpitations, provoked by excesses at table, and which are characterized by a tumultuous circulatory storm, which makes the body shake and the heart flutter, a morning frontal beating and mental depression. It has been likewise serviceable in some cases *due to mechanical obstruction*, such as *lesion of the arterial system*, with or without compensation, as well as when dependent upon a morbid state of certain organs, such as *chronic disease of the lung and liver*, and particularly so when the cardio-pulmonary alterations, associated to the hypertrophy, give rise to blood-stasis and dropsical effusions. The usual indications of this remedy in these cases, beside the palpitations, are the congested face, bleeding of the nose, dimness of sight, singing in the ears, beating headache, vertigo, difficult breathing, bounding pulse and general beating of the arteries.

The *cardio-vascular excitement* so characteristic of NATRUM MURIATICUM has naturally led to its employment in *exophthalmic goitre*, especially in emotional, irritable persons with advanced anæmia and emaciation, disordered calorification, irregular appetite and digestion and gastro-intestinal derangements, and where the continual palpitations are exacerbated by emotions and fatigue. This *cardio-vascular trouble* is often seen associated to *hypertrophy of the heart*, due, either to excessive activity or to a dilatation, responsible for the relative insufficiency of the mitral and tricuspid valves, or which may give rise to asystolia without valvular lesion. There are also certain alterations of the voice, as well as *attacks of suffocation* by compression and excitement of the recurrents, which certainly are not contra-indications for this remedy. Principally, however, we should take notice of the *melancholic sadness, irritability and other intellectual troubles* present in this affection. No less important are the *menstrual and urinary disorders*, especially the polyuria, the trophic lesion of the skin, and the bulimia, emaciation and cachexia.

In the actual study and consideration of NATRUM MURIATICUM there are certain morbid states which should be kept in

mind, namely, *degenerative changes of the arterial walls*, which are in part proliferative, and especially *chronic obliterative arteritis*, or *arterial sclerosis*, which is in frequent connection with chronic renal disease, gout, syphilis and systematic over-exertion or habitual overeating and drinking. And why should we keep them in mind? Principally, as we have stated elsewhere, because the symptoms of these morbid states do not always readily conform to systematic description, and due to their great variability according to soil and the intensity and distribution of the affection, they may call for this remedy in many instances. This is undoubtedly the case, should the *deficient blood-supply and blocking of the vessels* interfere so profoundly with nutrition as to bring about extreme emaciation, with a dry pale skin, shrivelled appearance, sensitiveness to cold, asthmatic breathing, cutaneous tingling and itching, cramps in the calves and soles of the feet, and drawing pains in the muscles during active motion; and *when the brain is affected*, we usually have as additional indications the temporal beating pain, the sleepiness by day and wakefulness by night, the rapid fatigue on mental exertion, the distressing dizziness, obscuration of sight, forgetfulness of words, hesitation or awkwardness in speech and muscular spasms. Even when the *coronary arteries are involved*, the peculiar indefinable feeling of coldness about the heart, the anginal attacks, the aching palpitations, the intermittent or irregular action of the heart, as well as symptoms pointing to myocardial weakness would unerringly guide us to selection of this remedy, for all these epiphenomena have been observed and embraced in the description of *arterio-sclerosis*. I am, however, not prepared to state that NATRUM MURIATICUM has a direct influence upon the *sclerotic process* and that it is through this influence we often obtain, in the course of the malady, if not an arrest, at least a marked amelioration; but, to-day, we are almost sure that it modifies the arterial tension, promotes vascular metabolism and corrects malnutrition, and it is probably in this way that it invigorates the vasomotors and reduces the tension of the vessels.

In the light of recent researches I cannot offer any new hints about the applicability of NATRUM MURIATICUM to *diseases of the digestive apparatus*. The same manifestations of faulty nutrition, the same gastro-enteric disorders, the same mental depression and irritability, the same modalities, are the leading indications of this drug. *Altered digestive metabolism*

under this remedy, is chiefly expressed by dryness, acidity, fermentation, intestinal torpor, obstructed flatulence, hepatic atony and splenic enlargement, and the epiphenomena, especially the disorders of sensation, are the result of these morbid conditions.

The dry mouth, labial herpes, intense thirst, sour putrid taste, the bulimia or anorexia, sour irritating eructations, mapped tongue, heartburn, waterbrash, nausea and vomiting of bile, gastralgia, epigastric pressure and distress, stitches in the liver and spleen, and obstinate constipation form, more or less, the *symptomatic complex* from which we draw indications for the employment of NATRUM MURIATICUM in *gastric, hepatic or intestinal dyspepsia*, as well as in other *chronic digestive disorders* associated with or complicating some wider disease process. But the most striking suggestive features of this remedy are: The bulimia with emaciation, the long continued constipation, the dislike for bread and fat, the craving for salt, bitter food and liquids, the relief of the epigastric distress from tightening the clothes, the mitigation of the symptoms when digestion is completed, and the modes and hour of aggravation.

Of the *specific infectious diseases* in which NATRUM MURIATICUM has been tried with notable benefit, I may mention both *scrofulosis* and *tuberculosis*, for I consider them distinct morbid states. There is no doubt of the influence of this drug upon the lymphatic system and low standards of nutrition. Under its operation it seems to give impulse to phagocytosis, provoke elimination and renew histogenesis. It has such marked affinity for the living cell, that it is often surprising how it restores the faulty metabolism of these morbid states. It is particularly indicated in the *strumous type of dystrophia*, which is characterized by slow nutrition and general feeble powers of resistance on the part of the tissues, but *seldom in the tubercular type* (except in pulmonary localization), which is characterized by premature rapid growth out of proportion to nutrition. In the *scrofulous type*, inflammatory damage is readily induced, and when started is apt to be unusually chronic and sluggish, while in the *tubercular type* there is a special instability of the body tissues, a proneness to acute rapid inflammation from relatively trifling damage. The *facies of the strumous* correspond closely with NATRUM MURIATICUM, the *facies of the tuberculous* does not. The *strumous habit* exhibits certain *chronic inflammatory and suppurative lesions of the skin*,

mucous membranes, bones, joints and lymphatic glands, morbid states more or less associated with anæmia and always offering a favorable soil for the development and evolution of tubercle, so that we may well say the *scrofulous soil* is recognized as one in which the tissues are specially liable to tubercular invasion, and in which the skin is much more coarse and less clear than in the tuberculous. It is now claimed that, in the *scrofulous soil*, *tuberculosis* has a tendency to be peripheric and curable. But the adaptability of this remedy to *scrofula* cannot be appreciated unless we study and compare carefully the manifestations of this dystrophic process with the pathogenesis of the drug. First, we find the countenance rendered especial by the swelling of the upper lip, effect of the *chronic coryza*, and no less noticeable is the coarse, unhealthy skin, with its greasy aspect or rhagades; then there is to be observed the otorrhœa, conjunctivitis, blepharitis, impetigo, acne, chilblain, hypertrophic coryza, herpetic eruptions of the nostrils, lips and angles of the mouth, adenoid vegetations, tonsillar enlargement, ganglionic tumefactions of the neck, leucorrhœa, etc., and finally the general tendency to repeated infections of the mucous membranes and skin.

Perhaps the only *tubercular localization* which I can mention, without contradiction, in connection with NATRUM MURIATICUM, is that of the lungs, already discussed under *phthisis pulmonalis*; though the recent experiments of our opponents with dilutions and irrigations of *chloride of sodium* in *tubercular processes of the glands, joints and bones* lead us to infer that it may prove beneficial in some of these cases, when internally given.

The usefulness of NATRUM MURIATICUM in *diseases of the generative system* has not been limited. In *female disorders* it has found application in many cases of *amenorrhœa and painful menstruation, preceded by mental depression* and attended by beating headache, palpitations, cramps, constipation and acrid leucorrhœa, especially in *studious school-girls or anæmic women*, who have had malaria, or who have become exhausted by prolonged lactation. Also in the *acrid leucorrhœa of hysterical girls*, with bearing down, aching in the back, inability to walk, occipital headache, constipation, itching of pudenda and crying melancholia; or in the *leucorrhœa of chronic prolapse*, with bearing down, constipation and vesical irritability, or when *associated with sterility* and always worse while walk-

ing, as in BOVISTA and KREOSOTUM. Likewise in *prolapsus uteri*; with leucorrhœa, aching in the back, and so severe bearing down that the patient must sit down to prevent the falling of the organ. It has been recommended and employed in *aversion to coitus* (PLATINA), or in *painful coitus* from dryness of the vagina, not from local hyperesthesia (vaginismus), but in *mental vaginismus*, when the aversion to coitus is extreme and every attempt to an embrace, or to the introduction of the speculum is followed by contraction of the muscles, we may find a good remedy in this drug, if the other symptoms agree, particularly so if the patient is sad and nervously excited, and very much constipated. The tenderness of the parts due to pelvic inflammation, gonorrhœa or syphilis, as well as excessive sensitiveness of the uterus itself, such as is present in acute flexion of that organ, are conditions which may be benefited by this remedy, but which should not be confounded with the hyperesthesia of the part, dependent not always on the same cause. It is often the cause of *sterility*, and it is claimed to be the result of laceration and inflammation of some of the nerve fibres during labor, in which case, of course, other remedies and means may be required. In almost all of the *female affections* in which NATRUM MURIATICUM has proved efficacious the state of the mind and disposition has been a leading indication.

In the *male*, NATRUM MURIATICUM has given satisfactory results in *seminal losses* either involuntarily (*wet-dreams*) or voluntarily (*masturbation*). These *losses of semen without coition* are usually followed by many denutritive and mental symptoms comprised in the pathogenesis of the drug. *Nocturnal and self-pollutions*, followed by weakness of the back and limbs, loss of memory, constipation, melancholia and a desire to be left alone and quiet, are under the scope of this remedy. We should also study NATRUM MURIATICUM when as a result of *self-pollution* the virile powers become exhausted, the erections and ejaculations imperfect, the patient is easily angered, the sleep is disturbed by lascivious dreams, the mouth is dry, the breath offensive, the bowels confined, the head and small of the back ache, and after continued abuse the patient finally falls into a state of despondency and helplessness, as if unable to reject the vice. These are desperate cases, but if drugs can assist the treatment, NATRUM MUR. is one of them. A *gleety discharge*, attending the venereal fatigue and ineffectual coition is an additional indication.

Gonorrhœa caused by acrid leucorrhœa is usually very obstinate, and produces, like other *infectious urethritis*, smarting and burning during micturition, and cutting-burning after voiding urine. If these cases *become chronic*, with painless discharge of yellow pus, and particularly maltreated by *injections of nitrate of silver*, no remedy is said to take the place of NATRUM MURIATICUM. Lilienthal recommends this remedy in *balanitis* with ulcerous erosions, and European homœopaths have spoken well of it in connection with *vulvitis blenorragica*, if attended by much smarting and soreness and crusty eruptions, the result of erosive inflammation.

It is characteristic of this drug, for the *sexual weakness* or painful coition to be associated with *alternatives of venereal orgasm*, with a pleasurable itching, and crawling sensations of the corona glandis or vulva, and with lascivious dreams.

NATRUM MURIATICUM, again, has been useful in *urinary troubles of the aged*, especially in those cases associated with *prolapsus uteri*, aching in the lumbar region, and involuntary passage of urine, when coughing, laughing and walking, making one think so much of CAUSTICUM. In *Bright's disease*, it seems as if our opponents have obtained better results from the restriction of alimentary salt than we have had from the internal administration of potentized *Sodium Chloride*. Had only the pathogenesis of this drug, however, included *albuminous urine*, the case would have been different. Lack of this manifestation may be ascribed to our defective provings and observations, as to the excretions, for to-day we have conclusive evidences that an excess of salt in the food produces *albuminuria*, and that in those suffering from *nephritis* it increases the existing proportion of albumin and also the *dropsical effusions*. It has been likewise proven that by the withdrawal of salt from the diet, we are enabled to combat *brightic-œdema* and the accidents of *chlorurated retention*, and from the physiological effects discussed we may deduce a number of new indications for the homœopathic exhibition of NATRUM MURIATICUM for curative purposes.

But, even if this drug should not produce *albuminuria*, or any of the *tissue-changes* observed during the course of *Bright's Disease*, are not in its pathogenesis sufficient indications to cover well many cases of this malady? The faulty nutrition, the anæmia, the emaciation, the extreme debility, the dyspepsia, the pollakiuria, the blood casts, the respiratory and

cardio-vascular phenomena, as well as the disorders of sensation and motion, the visual troubles and cryesthesia, form a valuable syndrome, not to be rejected by any serious student of our *Materia Medica*. And, moreover, does not the *etiology of the disease* and constitution of the patient furnish us additional indications? When *chronic nephritis* is not attributable to the acute disease, it arises under the influence of such ill-defined causes that it seems the blood is first altered or poisoned for a long time, and thus proves more irritating to the kidney than to other organs. In fact, according to many authorities, it is not a primary disease of the kidneys, but a systemic intoxication attended with *secondary renal lesions*. A feeling of *ill-health with increased anæmia and dyspepsia* may be long present before the *local œdema*. *Gout*, or excess of urate of soda in the blood is doubtless an efficient cause of the *vaso-renal change* present in the granular kidney. *Renal lithiasis, rheumatism, cardiac lesions, phthisis, scrofula and diabetes*, which have been included in the efficient causes, may introduce new phenomena in the pathogenesis of *Bright's Disease*. Alcohol may be operative in causing *sclerosis of the kidney* through the intermediation of *gout*, and *waxy kidney* occurs in the same circumstances as *splenic or hepatic lardaceous disease*.

It is perhaps in *diseases of the nervous system* where I have observed the most prompt and positive curative effects of NATRUM MURIATICUM, especially in *mental derangement and visual troubles*. If we study with care the pathography of this drug, in connection with the *disorders of the emotions and intellect*, we cannot fail to appreciate its adaptability to many cases of *intellectual and moral hypochondriasis*, especially after prolonged debilitating diseases, and of *melancholia and emotional neurasthenia*. This remedy suits well, both *the state of depression and the state of irritability of mental disorder*. In the first state, the *Nat. Mur. patient* is sad, reticent, apprehensive, weeps almost constantly, holds dear solitude and quiet, rejects consolation, and the menses delay and grow more and more scanty. In the second state, he is easily angered, vindictive and hasty, and suffers from violent palpitations, though he may be anxious and hesitating. The first morbid state is the result of grief, the second the result of temper.

The pathogenesis of NATRUM MURIATICUM has contributed much of interest to the subject of *visual troubles*. The blurring and dark spots before the eyes, as well as the *drawing stiff*

sensation in the muscles of the eyes when moving them, have been the chief indications of this remedy for *muscular asthenopia*. It is one of our best therapeutic agents, when the weakness of the ocular muscles, especially the internal recti, is dependent on a general break-down and attended with impaired digestion and malnutrition. It has proved beneficial in some cases of *asthenopia*, *complicating sexual neurasthenia and masturbation*, particularly when accompanied with a beating, hammering headache every morning. It has been often given for *diplopia*, and compared favorably with AURUM., LYCOPodium and LITHIUM CARBONICUM.

When, from straining of eyes, *conjunctivitis develops*, and this becomes associated with *asthenopia*, NATRUM MURIATICUM comparts honors with ARGENTUM NIT., ARSENICUM and GRAPHITIS. It has been extolled by our oculists for *hyperesthesia of the retina* due to reflex irritability, in chlorotic women, with intense photophobia, muscular asthenopia and hammering temporal headache; and no doubt this *hyperesthetic condition* when associated with the intense photophobia and spasmodic closure of the lids would suggest the employment of this drug in *blepharo-spasm*, especially so if it should occur in hysterical females. In the same class of patients it is not uncommonly called for in *copiopia*, when the wornout condition of the eye is due to constant strain, or the ocular fatigue is dependent upon reflex irritation from the uterus.

NATRUM MURIATICUM may also prove serviceable in *amblyopia*, which is the first degree of *amaurosis*, if occurring in poorly nourished individuals, or broken-down constitutions, after malaria, scurvy or venereal excesses. Buffon reports cases of *divergent strabismus*, due to weakness of the internal recti muscles, entirely cured by this remedy. It has also been recommended in *interstitial keratitis*, *follicular conjunctivitis*, *ophthalmiatarsi*, and other affections of the eye maltreated with lunar caustic as well as in *cataract and fistula lachrymalis*, and in *periodical ciliary neuralgia*, returning from sunrise to sunset and worse at noon.

Most *headaches* in NATRUM MURIATICUM are periodical, semilateral, frontal or temoral, and occur chiefly in the morning on waking up. They are due to *eye-strain*, *mental effort*, *anæmia*, or are *reflex*, from *uterine disorder*. In character they are pressing, more frequently *bursting*, as in BRYONIA, but principally *beating*, as if little hammers were knocking on the

brain. They are particularly common in *school-girls*, at the *age of puberty*, and in *chlorotic women* of hysterical tendency. The pain is not only worse in the morning on waking, but toward noon, from moving head and eyes, from reading, studying and talking, and usually attended by nausea and vomiting, or constipation. In *brow-ague*, *face-ague* and other *periodical neuralgias of chronic malaria*. It has been further recommended for *cramps*, which is a common symptom of *diabetes*, and of visceral irritation within the abdomen—in *convulsive tic* of the right side of the face; in *choreic movements*, limited to a single limb, with heedlessness of surroundings and violent contraction of the legs, making the patient jump up high; in *locomotor ataxia*, with constipation, pupillary contraction and visual disturbances; in *hysteria*, with delayed and decreasing menses, if the mental, sensory, motor and visceral disturbances correspond; Jahr places this remedy among those indicated in *epilepsia*, and points out its adaptability to those cases associated with chronic dermatoses, with uterine derangement, or with very pronounced sexual desire during the intervals; others recommend it after the seizure, if there remain a marked backache, headache and intellectual torpor. It has cured *nightmare* and *somnambulism*, and has a good clinical history in *spinal neurasthenia*, where the discouragement and apprehension, the matinal backache, the tendency to start, and the weak, heavy limbs have been the leading indications. But with all this, says one of our men, "it may readily occur that the bladder becomes weak with troublesome dribbling of urine after a normal stool; and we may admit this vesical symptom as a concomitant of spinal weakness, even though the prover had no such association, because such a combination is quite in keeping with the genius of the remedy." "We may regard both spinal and cystic atony as a part of a general tendency in salt to produce exhaustion, hence not as a symptom of paralysis, but rather of *neurasthenia*." In *functional paralysis*, however, that may come from fatigue, or from mental emotion, this drug may be placed side by side with COCCULUS, PHOSPHORUS and STANNUM.

NATRUM MURIATICUM has been repeatedly found efficacious in many *constitutional dermatoses*, of a vesicular, tettery, crusty or blotchy character, with or without *rhagades*, as well as in various forms of *seborrhœa*, especially *oleosa* or *facialis* and *capitis*. The *eczematous eruption* in which this drug has

done most good has been localized in the bend of the joints, oozing an acrid fluid, similar to that of GRAPHITIS, and forming crusts, with deep, bleeding cracks, often presenting a raw, angry-looking aspect; and in *other moist oozing eruptions*, at the various outlets of the body, with great rawness and soreness. It has, however, earned the best reputation in *labial herpes* or *fever blister*, as it is commonly called. It has also proved an excellent remedy in *herpes, circinatus and menstrualis*, as well as *præputialis*, and in *tinea tarsi* (ulcerous blepharitis). It is likewise a useful remedy in both *urticaria maritima*, due to salt-water bathing, and in *intermittent urticaria* associated with *chronic malaria*, especially when after violent exercise the large, red blotches itch violently. It is no less valuable in *seborrhæa, oleosa or facialis*, and in *seborrhæa capitis*, where the *gluey discharge* mats the hair extensively, and has been recommended and employed in *acne punctata* or *seborrhæica*, in *acne tarsi*, in hangnail, in *alopecia furfuracea, neurotica* and *pityroides universalis*, and in *impetigo rodens*.

In closing, I may say that NATRUM MUR. is worthy of more extended efforts, if only to establish on good foundation the rationale of its action.

VACCINATION AND VACCINOSIS.—J. B. Campbell, M. D. Under sulph. cm. a boy of ten developed what at first appeared to be a cluster of hydroa at the right commissure of the mouth, which later became scabby and were followed by more or less discrete patches and spots of the same character on the upper face and forehead. Within a week the entire chin and lower lip were involved, the outlines being entirely obliterated by an enormous aggregation of heaped-up scabs separated by burning, itching, bloody furrows. The appearance of the patient was distressingly loathsome.

Because of the piling up tendency and honey color of the scab, its location and the fact that the boy had been variously affected since vaccination three years earlier, he received Malandrinum, 30 (Guernsey) one broken dose. Immediately there developed high fever with swollen, tender submaxillary glands, a left-sided earache and violent conjunctivitis going from left to right. In another week the eye affection disappeared, then the earache, and finally wholesale desquamation disposed of the eruption, the patient meantime improving in every particular.

There appears to be little doubt of the connection between the vaccination and the "vaccinosis" eventuating in the eruption.—*The Medical Advance*.

MORPHIA IN DISEASES OF THE ABDOMEN.

BY

THEODORE L. CHASE, M. D., PHILADELPHIA.

THERE is no more important nor intricate problem presented to the mind of the practitioner of medicine than the consideration of the intelligent treatment of intra-abdominal disease, complicated as it is by the possible necessity of surgical interference. This statement applies equally as well to the relief of suffering as to the curative treatment of the condition present. Retrospection brings to memory the many past cases most of us have observed bearing upon this subject, and I am sure many of them vividly present courses and results far from satisfactory.

In view of this we are led to certain deductions regarding the relief of these cases by the use of opiates, and my purpose is to formulate definite rules for guidance in the successful management of subsequent similar cases. So frequently am I impressed with the severity of an abdominal case wherein morphia has been administered, casting its aspect of hopefulness, by seductively veiling the serious manifestations, which for the patient's greatest benefit should be under the limelight of observation.

We must observe, unmasked by the administration of any drug having a benumbing effect upon the economy, the dangerous phases of these cases. This is exemplified when the use of such a drug is discontinued and the calmative effects pass away; then appears the truly grave picture of the disease, which in many instances has already passed beyond our aid.

Beginning with diseased conditions in the upper abdominal cavity, presenting acute manifestations of inflammatory lesions, we can take up each organ involved and consider the advisability of the administration of drugs, the ultimate effects of which are the control of pain and the production of general bodily comfort.

Under "*Diseases of the Stomach and Duodenum*" we must study the various phases of pyloric obstruction, dilatation of the stomach, ulcer, and malignant disease. The pain due to partial or complete obstruction at the pylorus is, as a matter of

course relieved by sedative drugs; but with the resultant baneful action of quieting the symptoms, putting the stomach muscles at rest and so allowing lengthened periods of fermentation, and saphrophytic changes to occur in the stomach contents. These remarks apply to dilatation, when we consider that this is in a greater or lesser degree associated with the pyloric obstruction.

In the acute, perforating variety of ulcer we are warned by the sudden pain which is a precursor of perforation. To be sure, the pain is controlled by the use of morphia, which from the moment of its employment enshrouds the case in obscurity, obliterating the dangerous manifestations of a probable perforation. A perforated ulcer should be closed by suture within two hours; otherwise a fatal peritonitis is the inevitable result. In carcinoma of the stomach, where pain may be a prominent symptom, the treatment by drugs having a calmative action is inexcusable, as they delay accurate diagnosis; hence the period at which curative measures might be instituted is lost.

The Gall-Bladder and Bile Ducts afford the opportunity of exposing the fallacies of medication by the use of hypnotics. An acute inflammation of the gall-bladder requires the most careful observation; since it is a complex condition requiring analysis of every symptom. The same may be said of gall-stone disease. Although it is said that "morphia is always indicated in gall-stone colic," no statement could be further from the truth, when we consider the enlightenment which we have received upon the treatment of this condition in the last five years. A hypodermic of morphia was, no doubt, the best treatment prior to the days of aseptic surgery; but at the present time it is not becoming too positive to state that such treatment is *worse than no treatment at all!* As infection is early in cases of acute attacks of gall-stone disease which are allowed to extend into a chronic stage, we have the added complication of an empyema of the gall-bladder, where the risk of operation is multiplied tenfold.

Inflammatory Diseases affecting the pancreas are of rare occurrence; but this does not detract from the importance of remembering that the onset of severe pain is not an indication for the administration of morphia; but should be considered rather as an expression leading to the recognition of the diseased condition that early treatment may be instituted before the parenchyma of the organ is involved beyond repair.

The various types of intestinal obstruction cover a wide variety of lesions, the severity of which increases every hour, with a corresponding increase in the mortality rate and which may involve any area of the abdominal cavity.

The vomiting and pain may be controlled by the use of morphia; but the pathologic changes develop with increasing rapidity masking the diagnosis.

Intestinal perforation during the course of typhoid fever is a condition which requires extreme alertness on the part of the doctor in attendance. Some physicians use morphia to control restlessness in typhoid fever, and I have no hesitancy in saying that this is bad treatment. For example, a case of typhoid at the end of the second week complains of sudden, sharp pain in the lower right quadrant of the abdomen and a dose of morphia is given to relieve this condition; the result is that while the symptom of pain is quickly controlled and the patient made comfortable, the pain still persists, although the patient does not experience it. The perforation likewise exists, but has not been recognized, owing to the sedative effect of the drug, however astute the doctor may be, until the anxious facial expression, collapsic symptoms and distended abdomen announce the development of septic peritonitis, with the patient beyond the physician's control.

The use of sedative drugs in inflammation of the vermiform appendix is unfortunately far too common, and we cannot too strongly condemn this practice. I recall with regret the many instances wherein I have been called to a case of appendicitis where morphia had been administered to hold the pain in abeyance, and the case meanwhile gone on to perforation without the knowledge of the attending physician. In the beginning of an attack the pain experienced in the lower right quadrant of the abdomen is severe; but if treated by morphia is of short duration. The pain is not diminished; the patient merely remains insensible to it; just as certainly does perforation rapidly follow; but without the knowledge of the physician until peritonitis has developed. The deplorable fact that some physicians will go on treating a case of appendicitis from day to day with sedative drugs, in lieu of all that is said in medical societies against the practice, and the condemnation expressed in textbooks by every writer upon the subject seems inexplicable.

The only excuse for giving a sedative drug in appendicitis is after an accurate diagnosis has exposed the severity of the

case and operation has been decided upon. Then and only then is it excusable to give a hypodermic injection of morphia for the relief of intense suffering, especially where the patient has to be transported to a hospital for operation, and I might say here that some such patients should not be moved where it is possible to operate with safety in the home.

Ectopic pregnancy is another condition calling for careful observation of the symptoms present in order to afford the greatest possible benefit to the patient. When the products of gestation become adherent to the lumen of the Fallopian tube, the growth and enlargement take place slowly, and before pain is experienced the tube is distended almost to the point of rupture. Of course, many cases suffer no pain and the first symptom is one of collapse and hemorrhage; but we are only considering the cases which comprise about thirty per cent. of tubal pregnancies, in which the patient experiences periodic attacks of pain in either ovarian region, when just prior to rupture the pain reaches its maximum intensity. This is the time when there is a strong temptation to relieve the patient with an opiate; but such practice is wrong, for at this crucial moment the symptoms are obliterated by the calmative effect of the drug, the patient exclaims that she is better, and the doctor's anxiety is relieved; but only for a period of short duration, for a quick summons brings him to the patient, in extremis, due to internal hemorrhage, which is rapidly fatal.

Inflammatory diseases of the tubes and ovaries have pain for their most characteristic symptom, and although the pathologic changes are not so rapidly dangerous as in the described instances, if morphia is used to relieve inflammation, the affection rapidly advances to the stage of abscess formation, and localized peritonitis with complicating adhesions, making the risk of operation far greater than when first indicated by the severity of the inflammatory symptoms.

Thin-walled ovarian cysts may not develop symptoms calling for treatment for a considerable period; but when the tumor reaches sufficient size and its pedicle becomes twisted, it is made manifest by the onset of severe colicky pain located in the region of the tumor, with nausea and vomiting. If unrelieved by early surgical interference, the circulation is cut off and gangrene follows. With this knowledge we can appreciate the harmfulness of administering any drug having a hypnotic action.

Peritonitis should not be treated by morphia unless the time for operation has passed and a fatal issue is beyond prevention. Only in such cases is the use of morphia for the comfort of the patient excusable.

In our concise resume of the diseases affecting the abdominal cavity, we can safely say that morphia should be withheld in all cases, until such time as we are reasonably certain that any benefit accruing from medical or surgical intervention has proven futile; then and only then are we justified in giving a medicine solely intended for the relief of pain, rendering the patient comfortable on the road to eternity.

WHERE SHALL WE SEND OUR TUBERCULAR PATIENTS?

BY

FRANK EDDY CALDWELL, M. D., COLORADO SPRINGS, COL.

TUBERCULOSIS, that dread disease which annually claims such a fearful per cent. as victims; that disease which the medical profession has at last awakened to the fact that something radical must be done to stop its ravages and protect others, who necessarily must come in contact with it, so many are the aseptic measures recommended and in many instances, where possible, enforced.

All the profession are united on the great essentials in its treatment: First, fresh air continually, both day and night, and the more sunshine the better, as its rays are known to be rapidly destructive to the tubercle bacilli; second, the waste that is continually going on in the system of such a patient must be overcome by a carefully prescribed diet; third, and equally important, is the hygienic care of the patient. The second and third propositions are easy to any thoroughly informed physician, but the first as to where our patients shall have the fresh air, where they can have the full benefit of the anti-septic rays of the sun with its life-giving power, what climate is best adapted to the tubercular patient, are questions which it is well for the profession to inquire into.

Each section recommended has its ardent advocates, who depict, too frequently, in glowing terms, the great beauty and beneficial effect of their climate, for selfish motives; hence,

many are the great disappointments of the patient and family, so it is but natural that the profession should become suspicious and too frequently throw such literature in the waste basket without reading it.

It is my purpose in this short paper to state from personal observations, sustained by facts and clinical cases since my arrival in this most beautiful city of sunshine, Colorado Springs, Col., located as it is right at the foot of the Pike's Peak range of the Rocky Mountains, with an altitude of 5,095 feet. Let me quote from the annual report of the Department of Public Health: "For the total year of twelve months, January 1, 1905, to January 1, 1906 there was 76 per cent. of possible sunshine out of 365 days; there were only eleven days in which the sun did not shine at some part of the day. There was not a day without sunshine in the months of May, June, July, August and September. One hundred and ninety-five days out of the year had less than one-third of the sky covered with clouds, or were almost cloudless days." (See full report attached.) Since November 3, 1906, to date, there has not been a day that was without some sunshine. We have had three slight snowstorms, occurring during the night, not more than an eighth of an inch at any time, followed by two clear, dry, cold days; then a moderate day, and then the glorious Colorado Springs weather. Not once has it been necessary to use rubbers or umbrella. Could the profession of Greater New York alone, my home for many years, fully appreciate what I now know and have learned, Colorado Springs would be full to overflowing the year round.

It is a city where young and old live out of doors. Horseback and bicycle riding is in great evidence, and here in the latter part of February to see young ladies and gentlemen riding on their fine horses, many times hatless, their faces aglow with health and vigor, is a source of great pleasure.

Many of the beautiful homes are provided with piazzas and verandas, so protected that members of the family can sleep out on them at night.

I have made it my conscientious duty to call and meet many of my professional brothers and others, and have always asked. Why did you come here? and I can say a good proportion of our M. D's. were "lungers," as they call them here, dying in the East, but now are well, hearty and strong. Many business men and others say: "Was given up to die by doctors at

home in the East. Came out here such a date. Now look at me, doctor; don't look much like a consumptive, do I?"

I have said many times this winter, if the profession only appreciated to a slight degree what the Colorado climate is with its glorious sunshine, they would not hesitate for one moment as to where to send their patients.

Sunshine, God's great life-giving force and His great natural aseptic way of killing disease, is more powerful and potent in its effect than any human means. It is an established fact that Colorado and especially Colorado Springs neighborhood has more proportionately cloudless days than any other section of the United States, and from its altitude, the air is clear and dry, and protected as it is by the range of mountains, there are very few wind or heavy storms. Should one come it soon passes away, and the snow passes away as if by magic, never leaving the streets muddy or damp, which is a remarkable fact, and from the constituent of our soil, made up, as it is, of sand, with a slight mixture of adobe, there is very little dust even during the driest season, which would to the slightest degree be of injury to our patient.

In sending patients to Colorado Springs, Col., several considerations are of the utmost importance, and the patient should not only receive, but follow out instructions as to their physical treatment. First to consider is our altitude, 5,098 feet, which upon one's first arrival gives one a feeling of great exhilaration, buoyancy and especially as one gazes at our glorious range of mountains and the snow cap of Pike's Peak, and they feel as though they could climb at once to the top, and not being under careful instructions they too often make that serious and frequently fatal blunder. Rest, rest, at first they must have until such a time as their system's heart action, which at first is slightly increased, nerve tension has been thoroughly acclimated to the change in altitude; then comes their carefully prescribed exercises in the sunshine from 10 A. M. to 4 P. M. Tepid, salt, sponge bath as often as the condition of the patient indicates. For those who are too weak to take the prescribed exercise a gentle massage with good, pure olive oil several times a week is of great help and benefit. Again, I should most certainly recommend patients coming to this climate that they bring with them two pairs of light woolen blankets, sleep between them, as at this altitude the nights, even in the summer time, are always cool, and it is of the utmost importance that the body, and espe-

cially the legs and feet, be kept warm and comfortable, and not call upon the already weakened and exhausted system to an extra effort to supply that heat. It is unnecessary and undesirable that patients who are sitting out of doors in our sunshine should use chest protectors, and the great amount of superfluous underwear that they use in the East, but a soapstone or hot-water bag to the feet will in many cases give great comfort and should be used in such cases. Great care should be used and full directions given as to the care and disposing by fire of the expectoration. We have so many convenient and suitable means now for all kinds of tubercular patients that it becomes criminal negligence not to see that they are provided with those means and carry out instructions.

The patient should sleep in a room by him or herself with windows open both summer and winter, and have a room that at least at some portion of the day has our glorious sunshine, properly supplied blankets and bedding to always keep them warm.

I would recommend sun baths both sitting out of doors and in their rooms, if properly located, at times having the direct rays of the sun on the patient's chest and throat, for a few moments at a time, repeated two or three times each day, great benefit having resulted from such care and treatment.

There are two other important factors which can rightfully be considered why this section is superior: First by the charter rights of the city; no smithies or factories are permitted within its limits, so that the smoke, which is a nuisance in many of the Colorado cities, we are absolutely free from, giving the sun's rays their full power.

The second factor, and one of no less importance, is that not a single saloon exists in our beautiful city, nor can there ever, such a clause is incorporated in every deed, through the great forethought of its noble founder, General William Palmer, who through his great philanthropy and influence has done much toward the prosperity and beautifying of the city. He has just made possible the establishing of a College of Forestry in connection with our college, which is one of the best educational institutions not only in this State, but in the West.

I would do wrong if in closing this short paper I did not mention two other as greatly important facts obtained by consultations with the leading and oldest physicians in this city regarding the treatment of that equally dread disease, known by

the common term Cancer, of which, if we are honest, we can say operative measures serve but to relieve pain and possibly prolong life, never cure. I can truthfully say that in now twenty-seven years of professional life, in which I personally have used all means—X-ray, violet ray, various forms of electricity, medical and other means, but have never seen a case but what the dread disease has sooner or later returned. I have seen what appeared to be some very brilliant results from X-ray and violet ray, but invariably return elsewhere; but the consensus of opinion here is that in this climate, altitude, with its sunshine, aseptic in the true sense of the term, that after operations the disease is much less liable and much slower in returning that the general systemic effect gives the patient a much longer and surer lease of life, hence the conclusion is obvious, and the last factor to mention.

While attending a large men's brotherhood meeting at the Presbyterian Church in this city, February 12, 1907, the address was given by Dr. Peter Oliver Hanford, the Commissioner of the Health Department in this city.. He stated in reference to contagious diseases that there had not been a death reported by diphtheria or scarlet fever for two years, showing the effects of Colorado sunshine on the bacteria of those two fearful diseases.

MORAL PROPHYLAXIS. A CRITICISM WITH SUGGESTIONS.

BY

SPRAGUE CARLETON, M. D., NEW YORK.

PHYSICIANS have lately been called philanthropists, because they have been leaders in organizing societies with the hope of educating the public so that it may guard itself against the so-called social evils—the venereal diseases. They call us philanthropists because they believe that we are thus taking the bread from our own mouths, after having spent time, money and energy in fitting ourselves to make our livelihood by sanely dispensing the knowledge so gained. It is pleasing to some physicians to have themselves seen in this light, even though it be a false light, which it is, for above being doctors we are men—social beings with the same common interests as the rest of mankind. We, though we be physicians, have similar loves

and passions, homes and families, fathers and mothers, children and ambitions as those about us who have chosen other professions. We may be doctors, but this does not make us immune to disease, and therefore as men and women we are not anxious to have prevalent diseases which may—innocently or otherwise—gain entrance into our own lives or the lives of those immediately about us in our affections.

As physicians we know more of the dangers of the so-called moral diseases than the laity, and why then is it strange that we should be prime movers in this so-called moral prophylactic wave? By educating the public in the subject of preventive medicine, we are not doing away with the stock in trade of the physician; and even if we were, it would not be possible to teach, and have the public learn, so fast that the next generation or two of medical men would feel any decrease in their business. The effect upon the present generation and upon that of the immediate future will be an increase in the demand for the physician's services, for the public will begin to see dangers that they do not now realize, and therefore will have a cause for visiting a physician aside from pain and present disability. These further demands of the public will be a stimulus for the advancement of this branch of medicine.

Few, if any, of the Prophylactic Societies already organized have as yet been able to decide just how best to carry on their work. In the future it will be different, for they will learn from their present experience. From the experience of the past they have learned but one lesson, and that is that dreaming, the reading of finely written books dealing with ideal manhood and womanhood, or stories of wrecked lives, unhappy families, and similar matter, do not accomplish this mission. So let us profit by this experience and launch out into other fields, try out, and find out what will work; let us do something, and advocate that others do something, and learn wherein lie our mistakes. This is surely better than sitting back until we get a majority to think we have the method, then try it, and perhaps find it a failure.

The object of these societies is thought to be the prevention of venereal diseases: because that is the general impression we get from what we hear concerning them, but in this we are wrong. The greatest work and the greatest benefit lies in another phase of the same question, that is in correcting wrong ideas, overcoming false modesty, and teaching moral and sex-

ual hygiene, which will tend to lessen the number of perverts, gonorrhœics and syphilitics. This is prophylaxis.

Now let us consider what is being done at present and find its mistakes, so that to-morrow may show progress over to-day.

At a late public meeting of the New York Prophylaxis Society, one of the members reported that much time was being given by a few schools to the subjects of botany and zoology, believing that thus they were preparing the child's mind to understand sex and practice a social and hygienic conduct that would benefit him. This education in botany and zoology is essential for one's fuller appreciation of the life and wonders of the world, but it is of questionable value as a step toward enlightening people, so that they may avoid such sexual and social consequences as follow foolhardy neglect or ignorance. The method is questionable for these reasons. The child (boy or girl) looks through the microscope and sees the simple or lowest animal life multiply by the slow and quiet (gradual) division of cells. Note that he is not taken to, but away from, the higher order of animals, which more truly simulate multiplication among human beings. Or again, in botany, the child is told that the winds and small flying life carry the pollen from one plant to another, thus fertilizing them. Perhaps they appreciate what fertilization is; the chances are, however, that they do not. They are not old enough. The course has its apparent success from the interest it elicits; these are classes where children do things and play grown-ups; it is fun compared with a spelling or a writing class, or a lesson in grammar. Thus you have one reason for failure; and a second reason is to be found in the fact that after all this preliminary education, which, to begin with, was interesting, but not truly understood, you have gained nothing toward more easily explaining the necessity of sexual hygiene, nor the physiology and mysteries concerning the passionate copulation of mankind. The one is the study of the lowest orders of wild normal nature, without passions, etc.; the other, a combination of the higher animal life and civilization, and we all know to what an extent civilization is a modifier of nature and a contradiction to it.

Once in a while a teacher does get near the subject of sex, making use of a higher animal as an example. A common instance is found in the description of a kangaroo mother carrying her little ones about with her in a pouch hung from her abdomen. If this is shown to children it appeals to them as a

curiosity, something new and unusual; to older people it is something "cunning" and "dear," and to old folks it is either provident nature or a fine example of the affection and labor of motherhood, for which we should always have respect. But does it help to lead healthful, clean lives? Does it help to explain that nature says "do"; the individual, "I want to"; and society, "no," unless you swear to hold your nature in check, except as it is pleasing to one, your wedded wife according to the law?

Truly, this botany and zoology does not teach or help to teach how best to carry yourself among the contradictions of life. I refer here to the physiological, not the moral, question.

Consider the anatomy, physiology and hygiene as taught in the lower grades of our schools*—here was an opportunity for a child to learn a truth or two, he was interested and curious as all children are who are old enough to study from a book. What did our educators do? They marked themselves "unfit," by labelling themselves as examples of false modesty. And how? By having special editions of anatomy and physiology, or else ruined bindings by tearing out everything relative to a sexual organ or thought. And then they say they are teaching anatomy and physiology! They are doing the same thing when they show an amœba dividing, or tell of the wind blowing pollen from one plant to another—and then boast of what they are doing to teach sex so that mankind will be physically and mentally cleaner.

In short, it is evident that these people are not fitted for the work they are undertaking, nor are they fitted to point out the evils and means of avoiding unnatural sexual acts, where nature too willingly acquires the modified habit, only to shame one when one becomes older. This is an evil of youth, and if our motto is "prophylaxis" then we must do our work, or part of our work, early; we cannot wait until the child is old enough to study botany and zoology, to say nothing of learning it.

As was said before, the venereal diseases do not alone constitute the social evil. Here it might well be said that medical men as a whole have, like the educators, marked themselves with false modesty by careful avoidance of the words gonorrhœa and syphilis, and dealing with them as though they were outside the realm of legitimate medicine. To the physician

*A similar condition exists among many who believe they are being trained to nurse.

syphilis and gonorrhœa should be syphilis and gonorrhœa—diseases and as such should receive the same careful attention as other diseases. Nor should a physician regard these conditions lightly. It neither helps the patient nor becomes the physician's dignity to start the treatment with an obscene story. These are diseases that will travel rapidly in a community, and the public should be made to see and demand that the physician and the law use the same precaution and powers that they exercise over other diseases that are dangers to society.

There is a gap in the health legislation that must be filled, for while your child is not allowed to attend school on account of the prevalence of a contagious disease, or you are not allowed to do this or that lest you spread some specific disease, the law does not protect you from butlers whose syphilitic hands contaminate your food, your knives and forks, and spoons; nor does it protect your children from being played with and caressed by a syphilitic or gonorrhœal infected nursemaid. It is not a crime to have gonorrhœa or syphilis, but it is a crime against society to expose others to it. Is there any reason why we should not know of the health of those who handle our foods and bodies as well as have a knowledge of the gross constituents of our foods. Surely, it is our duty to arouse the public to demand legislation to prevent the spread of gonorrhœa and syphilis, not because they are venereal diseases, but because they are diseases that do damage to the public health and society. The names of these diseases should come to us with smallpox and diphtheria, and their presence so labelled that we may fight as shy of their habitations as we do of the pest house or any other quarter where a Board of Health notice is evident.

The youth must be made to see that these diseases are not rare; the maiden must be made to realize that gonorrhœa and syphilis are not incompatible with wealth, that any man or woman, boy or girl may have it. Further, all must be made to understand why, when one of these diseases is contracted, there is but one thing to do—to see a reputable physician (not a quack or a druggist) and follow his advice and treatment until discharged. Physicians, too, should be made to see that they have a responsibility more serious than causing a few skin lesions to disappear, or the drying up of a urethral discharge. In other words, the Prophylaxis Societies have much work to do among medical men.

Statistics show that about seventy-five per cent. of abdominal operations upon women are necessitated by some gonorrhœal invasion, and yet the majority of physicians do not take gonorrhœa seriously. We have no right to treat gonorrhœa by some routine method or allow our patients to look upon it lightly, for some day they marry and pay the penalty that should be ours.

Having spoken of gonorrhœa and syphilis, of those who have it, and those who treat it, let us now look to those who boast of their purity, their virginity, etc., and see what sexual enlightenment would be advantageous to them. Here you have the goody-goodies, the masturbators, the cowards and the engaged couples. Among these there is some need of sexual enlightenment, for we find them doing much that is natural as a step to intercourse. But what do these men, women, boys and girls do that is harmful to themselves? They do this—they make the greatest possible speed toward the natural gate of sexual gratification, then stop and mutilate their body and nerves outside—all the while patting themselves on the back for their will power thus to refuse to do wrong. This becomes a frequent occurrence, a habit. Nature modifies itself to make the situation pleasurable, but in so doing it re-arranges the normal reflexes and temper of the nerve centres in this sphere. And what is the result? Congestion and chronic inflammation of parts of the sexual apparatus, so that they are unable to perform normal sexual relations; and associated with this is that loss of vigor and force in manner, actions and decision that are the admirable characteristics of manhood. And all the while the old habit and the modified conditions are urging the victims on to fixing the habit even more strongly. This is something of which the public should not be ignorant. In this line I would like to suggest for serious debate “the loss of manhood versus the loss of virginity,” for it would bring out clearly that we cannot afford to lose either.

And now, how to save them? This is the question for the Prophylactic Societies. It is generally in youth that we lose them, so if our measures be prophylactic, we must begin them early.

“Education” as taught is generally forgotten, but problems made clear and understood become part of one. So we should not aim to teach new things, but rather spend our time in clearing the public mind where it is misinformed or struggling

for information on the physiology and hygiene of sex, giving to the child a child's portion; to the youth, a youth's portion; and to the adult, an adult's portion. Surely it is no more necessary to make botanists, or zoologists, or doctors of them all than it is necessary to make them chemists in order to realize that fire burns, and then make them specialists in something else in order to appreciate that burns are painful.

Let us take a common condition that comes within the sphere of sexual prophylaxis. Let us ask a question and answer it as we have heard it most frequently answered. The question is, What are you going to do with your boy as regards masturbation? The answer is: "I'm going to take him aside about once in so often and tell him the results of masturbation." You agree that it would be the common answer. Now, is the general public qualified to tell the boy the results of masturbating? Would he not get more misinformation than fact? Wherein is this going to differ from the harmful despondency produced upon masturbators by the common and vulgar literature on this subject?

No, this is not the best method. Let us not wait until he has the habit; let us not suggest the habit to him by telling him of it; let us not scare him to death; but let us personally see to it that his genitals are not irritated by any abnormality, lack of cleanliness, or poorly fitting clothes of irritating texture. Let us teach him to keep the parts clean, and teach him to speak to us of an itching or uneasiness of the genitals as he would an itching or uneasiness elsewhere. This is prophylaxis, and in most cases you must acknowledge it to be the better method. The gathering and organizing of matter similar to this, relative to other sexual questions, is the field of the Sexual Prophylaxist that will give the richest harvest.

Modern medicine is giving much attention to prophylaxis, and the public are learning fast to value this as highly as a wonderful cure, and herein lies a partial solution of the sexual problems and the development of a new specialty, "Sexual Prophylaxi," from whose lore the medical profession, and in time the public will gain enlightenment. Until the public grasps it, it must be dispensed as medicine in private practice or clinic, for it will purify the public health and be appreciated by mothers and fathers as an opportunity to do justice to their offspring in those things in which they are ignorant, or shrink from, on account of false modesty.

The development of this specialty necessitates an extensive canvass among the young and old to determine a general working basis to which we can apply judgment for special cases. We must first go to the higher educational institutions and determine by tabulated records the prevalent information and misinformation with relation to time and source of obtaining it. Next, with this information in hand, we must get in touch with bodies of men and women somewhat younger and less advanced, and thus trace back and substitute true for false and vicious ideas. In this way we can build up a progressive system of sexual education.

For some time we can reach but a small number of those in need of our assistance, but our duty is to enlighten as great a number as possible, in order that they and part of the body may not suffer or fail unnecessarily amidst the sexual contradictions that civilization spreads about.

Here, indeed, is an opportunity for a philanthropist to make possible the development of a branch of science that is of value to the health and comfort of all mankind.

INJURIES ABOUT THE WRIST JOINT.

BY

JOHN DEAN ELLIOTT, M. D.

(Read before the Homœopathic Society of the State of Pennsylvania.)

INJURIES in and about the wrist joint are among the commonest of surgical lesions, and are usually caused by indirect violence.

From August 1st, 1904, until August 1st, 1906, 6,231 patients were treated in the morning department of the Hahnemann Surgical Dispensary; of these 410 were suffering with fractures. The bones about the wrist were broken as follows: scaphoid, twice; shaft of the radius low down, four times; shafts of both bones low down, twice; chipping off of the ulnar styloid, twice; fissured fracture of the lower end of the radius, with fracture of the ulnar styloid, once; epiphyseal separation of the lower end of the radius, twice; Colles' fracture, 58

times, making a total of 71 fractures in this neighborhood—a little over 17 per cent.

The strong ligaments, the slight motion between the carpal bones, which somewhat breaks the jar of a blow, and, most important, the tendons which surround it, all help to give great strength to the wrist joint, so that forces applied here are usually expended upon the weaker bony structure.

Various fractures occur, but by far the most important and commonest is that of Colles', which constituted 14 per cent. in our series. It is usually caused by a fall upon the outstretched hand, and takes place at the junction of the shaft and the spongy bone forming the lower end of the radius, therefore, from three-eighths to one and one-half inches above the joint. It is often transverse, but in the majority of complete fractures the line is slightly oblique, being higher on the dorsum and externally, thus coinciding with the line of union between the dense and cancellated bones.

The lesions produced in the lower fragment are not constant; in over 50 per cent. there is comminution and not infrequently the articular surface is involved, especially posteriorly where it comes in contact with the carpus when the hand is fully extended.

The lower fragment is carried outward and backward, and its upper end is more or less tilted toward the ulnar side, so that by inspection we find a marked prominence or hump on the dorsum, a corresponding defect underneath, and just above this the projection of the end of the shaft, producing the well-known silver-fork deformity. The articular surface points downward, backward and outward, instead of downward, forward and inward, as it does normally.

When the lower fragment is everted the hand goes with it, giving one of the most important, and probably the most constant symptom of a Colles', i. e., the carrying of the hand to the radial side. This is not abduction of the hand, as it is often described, for the changed position begins at the seat of fracture, and no voluntary motion at the wrist joint can simulate it. This point should be borne in mind when comparing the injured limb with the sound one. This eversion can only take place when the ligaments, especially the internal lateral, the interosseus, and, perhaps, the triangular fibro-cartilage, are stretched or torn, and this will cause widening of the joint and the ulnar styloid to stand out prominently.

When the cross strain is slight or absent, the shaft is driven directly into and impacted in the cancellous bone. The displacement, which depends upon the direction of the force, varies greatly, or may be so small in amount that it cannot be recognized through the swollen soft tissues. In nearly all of these cases there is crushing and comminution and, although eversion is present, a fragment may be driven against the ulna, and this will tend to decrease motion between the bones, especially if the sigmoid cavity is involved.

By palpation the radial styloid may be found to be on the same level, or even higher, than that of the ulna. This occurs in about 50 per cent. of the cases, but it may be absent with marked deformity in impacted fractures. When palpating the ulnar styloid the hand should be midway between pronation and supination, for in this position the styloid will be directly under the examining finger, and if it is broken off this lesion can be detected.

With impaction a bunching at the lower end of the radius is felt, and this may be the only symptom pointing to a fracture. If slight it is often difficult to recognize, as the normal expansion and roughness of the bone and the swelling are misleading. Comparison with the other wrist will aid in making a decision, and by sliding the examining fingers from the edge along the anterior surface of the radius the soft parts can be pushed away and any deformity distinctly felt.

Although abnormal mobility and crepitus are pathognomonic symptoms, they should not be sought. To elicit them means severe pain to the patient, and in doubtful cases, either on account of the swelling or because the bones are impacted, they cannot be made out.

Such an examination will in the vast majority of cases demonstrate a fracture, but the rule insisted on by Van Lennep is the safe one: "In every case of a fall upon the outstretched hand, a radiograph should be taken, or the patient should be anæsthetized and an attempt made to break up an impaction." If this were always done we would meet with less deformed and useless hands. And certainly no damage can follow the manipulations necessary to reduce a fracture if the bone is intact.

Fracture of the styloid process of the ulna occurred in 40 per cent. of our cases, a smaller percentage than usually stated. It is most frequent in young patients, in whom it takes the

form of an epiphyseal separation. The displacement was slight in many cases, but in others the process was completely separated from its attachment. The same manipulations required to reduce the fracture of the radius will reduce this one, and fibrous union, at least, with no bad after effects, can be confidently anticipated. If the displacement is not overcome, pain when using the hand persists over a long period.

When the injury has been severe, effusion into and around the tendon sheaths is extensive. As a result, and it is not an uncommon result, a plastic thecitis with ankylosis of the fingers, giving a practically useless hand, follows. Other, but rarer, complications are compound fractures, fractures of the shaft of the ulna, of the styloid process of the radius or the carpal scaphoid, and dislocation of the lower end of the ulna. Moore first described the last and evolved a special technique to overcome it. Hamilton agreed with him that it is of common occurrence, but the X-rays have failed to show this to be a fact.

The prognosis depends upon many factors. Age must always be considered. Though many elderly patients recover completely, a guarded prognosis is always advisable.

Severe crushing and comminution with the resultant loss of substance makes a good anatomic result impossible. The deformity can not be overcome, eversion of the hand and prominence of the styloid process of the ulna remain, all functions of the joint are impaired, and even the power of pronation and supination may be completely lost.

The danger of effusion into the soft parts has already been referred to. If the fracture enters the joint a correspondingly poor prognosis should be given.

The *sine qua non* of success in treating a Colles' fracture is complete reduction and perfect apposition of the fragments. This applies to all cases. Every student who passes through Hahnemann College learns that one impacted fracture, and only one, should always be broken up. And this is a Colles'. I have failed to find this maxim elsewhere, and for that reason wish to lay particular stress upon it. A perfect result may not follow, but certainly the patient will have a more useful and a better-looking arm than if it is left alone. This is best accomplished by grasping the lower end of the radius in one hand and making forced flexion and extension, while the shaft is held firmly with the other. With the forearm flexed and the hand

carried to the ulnar side, the fragments can be forced into position. As these manipulations are exceedingly painful, and considerable force must be used to break up an impaction, a general anæsthetic is always of value.

Nitrous oxide gas or a few whiffs of ether are enough, for there is little muscular action to overcome and loss of sensation is all that is necessary.

There are three requisites in a proper splint for this fracture: (1) The hand should be carried to the ulnar side; (2) The hand should be flexed to preserve the arch of the radius; and, (3) The splint must be short enough to allow free motion of the fingers. No special pads to hold the bones in position should be used, on account of the danger of gangrene from pressure, which is always to be feared in fractures of the forearm when two splints are applied. They are particularly contraindicated with much swelling, and it is in these cases that retention is most difficult.

The perforated Levis metal splint will answer these requirements very well, but an even better dressing is one of plaster of Paris, used at Hahnemann,* which consists of a palmar splint beginning a little below the elbow and ending at the metacarpophalangeal articulations. It can be made of any desired length or thickness by folding the wet bandage forward and backward, and should reach from one styloid process to the other. The hand is held in the proper position and the fragments coapted while the plaster is hardening. It is light, not so cumbersome as a metal or wooden splint, is always to be obtained, and has the great advantage that it can be adapted to the peculiarities of each individual case. With severe traumatism, antiphlogistics should be freely used to reduce the inflammation and absorb the exudates.

Union is pretty firm at the end of two weeks, when gentle passive motion may be instituted, and the splint can be discarded in four weeks. The fibrous tissues do not heal so quickly as the bony, and a leather wristlet should be worn for six months. If this precaution is not taken the joint gradually widens, the hand is carried to the radial side and the styloid process of the ulna becomes prominent. Hot and cold douches, passive motion and massage are adjuvants in securing a strong and useful wrist, and the patient should be encouraged to perform some light work.

*Van Lennep, *Hahnemannian Monthly*, February, 1897.

In old fractures an impaction may sometimes be broken up as late as five weeks, but after that, on account of the small size of the lower fragment, such a proceeding will be impossible. For the same reason osteo-clasis, even if successful, will cause too much destruction of the soft tissues, nor will it restore the length of the radius.

In complete fractures, when the deformity has not been overcome, osteotomy has been recommended, and has been successfully accomplished several times.

With loss of pronation and supination, resection of the lower end of the radius has given fair results, and is worthy of a trial in properly selected cases. If a misplaced ulnar styloid gives rise to much pain and disability it should be removed.

An inverted Colles' fracture, in which the lower fragment is driven toward the palmar surface instead of the dorsal, may be rarely met. It is generally ascribed to a fall upon the flexed hand and the direction of the force is opposite to that usually applied. The fracture is a complete one and can be diagnosed by the same symptoms as a Colles', allowance being made for the reversed displacement. The lower fragment is partly hidden by the flexor tendons, in which it is buried, but the upper fragment forms a sharp ridge on the dorsum. The hand is everted and the ulna prominent posteriorly. The same rules should be followed in the treatment as have been outlined for Colles' fracture.

Epiphyseal separation of the lower end of the radius occurs more frequently than supposed, the usual diagnosis being Colles'. It is to be suspected in a patient who is under twenty years of age. Pain and tenderness are felt along the epiphyseal line, which is lower than in a fracture. There is usually no lateral displacement, the line of separation is transverse, crepitus is soft, reduction is easily accomplished, and there is little tendency to recurrence of the deformity. In older patients a layer from the dorsum of the bone is usually torn away with the epiphysis. The prognosis is good, the growth of the radius being rarely affected, although several such cases have been reported. The treatment is the same as for a Colles'. Separation of the lower epiphyses of both the ulna and radius presents much greater difficulties in the treatment than does separation of the radial epiphysis alone. It is often impossible to get them accurately replaced, so healing occurs with some deformity, and this increases the chances of arrest of growth.

Fractures of the lower end of the shaft of the radius, or of both bones, may so closely simulate a Colles' fracture that a diagnosis can only be made by a radiograph or when the patient is anæsthetized. The displacement is usually the same, although in one of our cases the lower fragments of both bones were carried to the ulnar side, causing inversion of the hand. The usual cause is a fall upon the outstretched hand. We had such a case last winter in a boy who had been treated by us within a year for double Colles' fracture received in the same manner.

The treatment is the same as for a Colles', but reduction is often exceedingly difficult, and if the fracture is several inches above the joint care must be taken to prevent the formation of interosseous callus or angulation between the fragments. Fractures of lower end of the shaft of the ulna are rare and are diagnosed by localized pain and palpation of the bone. Displacement, as a rule, is slight and the treatment consists of immobilization on a straight splint.

If more radiographs were taken in injuries about the wrist joint, probably fracture of the ulnar styloid alone would not be considered such an uncommon lesion. We have treated two cases, both of which had been overlooked in other hospitals, but a careful examination made us suspect it in one case, and in the second a clinical diagnosis was possible. In the latter it was caused by direct violence; pain and localized tenderness were complained of, a depression was felt at the site of the process and the diagnosis was clinched by feeling the rough bone. Radiographs showed marked displacement in each case, which was overcome by carrying the hand to the ulnar side. One patient never returned for treatment, but in the other the result was good.

The radial styloid may be chipped off separately, though it is more commonly a complication of a Colles' fracture. There is usually little displacement, as in our cases, but it may be drawn up by muscular action. A diagnosis without an X-ray is difficult on account of the swelling. Reduction is easily accomplished and the after-treatment consists of immobilization. Fissured fractures of the radius have been described since the X-rays have made their diagnosis possible. Immobilization with early passive motion is all that is required. The joint having been entered the after-treatment may be tedious, but the ultimate results are usually good.

Dislocation of the wrist is extremely rare, and is usually associated with a fracture of the rim of the articular surface of the radius, about one-half an inch above the joint. This is a Barton's fracture, and may be anterior or posterior, although almost invariably the latter. The etiology of a dislocation is the same as that of a Colles' fracture, from which it can be differentiated, by locating the two styloids anterior to and below the hump, by feeling the clean cut, rounded surface of the carpal bones, and the deformity disappearing with a snap. Reduction is easily accomplished by direct extension, with perhaps some abduction and supination. This has been successfully performed as late as sixty days after the injury. Crepitus may be felt with a Barton's fracture, and recurrence of the deformity is more likely. Every effort should be put forth to reduce the amount of inflammation and prevent ankylosis at the wrist, which is the greatest danger.

One of the rarest of lesions is an uncomplicated dislocation of the lower end of the ulna. Following the general rule of injuries in this neighborhood, the backward dislocation is the more frequent. A diagnosis can be made from the narrowing of the wrist joint, from a depression where the ulna should be found, and by locating it on the anterior or posterior surfaces of the forearm. In recent injuries reduction is usually easily accomplished by keeping the radius firm and pushing the ulna forcibly towards its socket. Some cases demand also extension and counter-extension. The bone generally remains in place without assistance, but in several cases there was a strong tendency to spontaneous dislocation. G. A. Van Lennep has reported a case of forward dislocation, combined with a fracture of the styloid process; the dislocation could be reduced, but it was impossible to retain it in its normal position. Resection of the lower end of the ulna was finally resorted to and a good functional result obtained.

Fractures of any of the carpal bones are possible, but the one most frequently affected is the scaphoid. It has long been known as a complication of Colles' fracture, but the importance of a simple fracture of the scaphoid has not been properly recognized. It is not a very rare condition, but like so many of these injuries, it has usually been treated as a sprain with resulting pain and loss of function. Four cases have been X-rayed in Hahnemann Hospital within the last six months, two of which belonged to our department.

One patient had been treated with massage, passive motion, etc., for about five weeks with no improvement. His wrist was immobilized, but he discontinued treatment after two weeks. A diagnosis was only made with the X-rays. The other was a recent injury and a tentative diagnosis made from the symptoms, was afterwards confirmed by a radiograph. He had pain, swelling, loss of motion, particularly extension, but the swelling was greatest in the radial side of the joint, and the tenderness was localized to the scaphoid bone. His hand was put upon a Levis splint and kept there for four weeks, when active and passive motion was begun. The result was satisfactory. Codman and Chase advise the excision of the proximal fragment if troublesome symptoms persist after eight weeks, believing that no harm will result and that in the majority of unoperated cases non-union and pain from pressure upon the nerves or from motion will follow. Certainly this is a more frequent injury than is generally supposed and should be carefully sought for.

Anterior dislocation of the semi-lunar bone may complicate the scaphoid fracture, or may be the only lesion. It can be diagnosed clinically by a silver-fork deformity, the posterior prominence of which corresponds with the head of the os magnum, and between which and the lower end of the radius is found a groove representing the position formerly occupied by the now dislocated semi-lunar, and a tumor under the flexor tendons of the wrist just anterior to the lower end of the radius. Recent dislocations can be reduced by forced extension and flexion, while an assistant makes firm pressure on the semi-lunar bone. If reduction is impossible, and the presence of the bone gives rise to discomfort, its removal is indicated.

EDITORIAL

IN MEMORIAM—PEMBERTON DUDLEY, M. D.

It becomes our painful duty to announce to our professional brethren that Pemberton Dudley, M. D., LL. D., died on Monday, the 25th of March, 1907, at his residence in Philadelphia. Several months ago the doctor was thrown violently to the pavement while attempting to board a trolley car, and while no bones were broken, the severe concussion to his whole body produced such a shock that from that time his health failed. While for a short time he continued his work, his decline was steady and rapid, and his suffering severe, all of which he bore with Christian fortitude.

When the readers of *THE HAHNEMANNIAN* take into consideration the continuous intimacy commencing nearly forty-eight years ago in college, they will, I doubt not, accord to the writer the opportunity of knowing Dr. Dudley fairly well. I know that I may safely say, without fear of contradiction, that he was one of the most genial of men, correct in his habits, honest in his purposes and a hard worker. From his early life his whole attitude was one of industry and continuous application to duty, and his desire for a correct life, and for the truth in medicine, led him early to the church, and to homœopathy, considering, as he did, both of these truths as emanating from the same Divine source. I know of no more apt exemplification of Dr. Dudley's life and work than to quote Longfellow's beautiful poem, "The Psalm of Life":

Tell me not, in mournful numbers,
Life is but an empty dream!
For the soul is dead that slumbers,
And things are not what they seem.

Life is real! Life is earnest!
And the grave is not its goal;
Dust thou art, to dust returnest,
Was not spoken of the soul.

Not enjoyment, and not sorrow,
Is our destined end and way;
But to act, that each to-morrow
Finds us farther than to-day.

Art is long, and time is fleeting,
And our hearts, though stout and brave,
Still, like muffled drums, are beating
Funeral marches to the grave.

In the world's broad field of battle,
In the bivouac of life,
Be not like dumb, driven cattle!
Be a hero in the strife!

Trust no Future, howe'er pleasant!
Let the dead Past bury its dead,
Act,—act in the living Present!
Heart within and God o'erhead!

Lives of great men all remind us
We can make our lives sublime,
And, departing, leave behind us
Footprints on the sands of time:—

Footprints, that perhaps another,
Sailing o'er life's solemn main,
A forlorn and shipwrecked brother,
Seeing shall take heart again.

Let us then, be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labor and to wait.

And Dr. Dudley *was* "a hero in the strife!" It is necessary to give but briefly some of his life's work to prove how incessantly he toiled, that he was always "up and doing," "still achieving, still pursuing."

Dr. Dudley was born near Torresdale, Pa., October 17th, 1837, his parents being William Dudley and Eleanor Wood, his father being descended from ancestors who followed the fortunes of the "Mayflower" pilgrims. He was educated in the public schools and in an academic institution, following this up by teaching for two years while studying medicine, attending lectures at the Jefferson Medical College, and the last year

at the old Homœopathic Medical College of Pennsylvania, now the Hahnemann Medical College of Philadelphia, graduating in 1861. Dr. Dudley always took a prominent part in all the important movements in which homeopathy was concerned. He assisted in organizing the County Medical Society in 1866; became a member of the State Medical Society in 1867; later he was chosen President of both these societies. He joined the American Institute of Homœopathy in 1869, was elected Secretary in 1887, and served in that capacity for seven years, and edited its annual volume of transactions. He was elected President of the Institute for the year 1896.

At the session of the American Institute of Homœopathy in 1871 he initiated the movement which led to the holding of the World's Homœopathic Medical Convention in Philadelphia in 1876, which was the origin of a series of similar congresses in various parts of the world. He was honorary secretary of the Congress held in connection with the Columbian Exhibition in 1893. His alma mater early, attracted by his promising career, called him to the chair of chemistry and toxicology in 1868, which he filled satisfactorily. In 1876 Dr. Dudley was elected to the professorship of physiology and microscopic anatomy, which he held until 1890, when he was made professor of institutes of medicine and hygiene, which chair he occupied up to the time of his death.

Dr. Dudley was one of the original members of the Hahnemann Club and aided with the other members in organizing the Children's Homœopathic Hospital of Philadelphia, and became a trustee and member of the medical staff. At the organization of St. Luke's Hospital he was appointed a trustee, and one of the visiting physicians. In 1885 Governor Pattison appointed him one of the members of the State Board of Health. Dr. Dudley served on the Board by reappointments for twelve years and was the Chairman of the Committee on Food Adulterations, and in July, 1895, he was elected President of the Board.

In 1896 Dr. Dudley's highest honor was conferred upon him when the faculty of the Hahnemann Medical College elected him dean, which post he filled for seven years. During all this time his life, already full, one would think, he still remained a prolific writer on medical subjects.

From 1880 until 1888 he was editor of *THE HAHNEMANNIAN MONTHLY*. His editorship marked the period when it

began to rank amongst the most influential homœopathic periodicals in the world.

Dr. Dudley revised and edited a new version of Hahnemann's "Chronic Diseases," recently published, and he wrote the article entitled "Homœopathy," embracing nearly eight pages, for the "Encyclopædia Americanna," volume 8. In 1896, in consideration of Dr. Dudley's attainments, Rutherford College, of North Carolina, conferred upon him the honorary degree of LL. D. He also held honorary membership in the Mexican Institute of Homœopathy, Southern Homœopathic Medical Association, British Homœopathic Society and the Germantown Homœopathic Medical Society.

The crowning accomplishment of Dr. Dudley's career, so considered by himself, is the work on Institutes of medicine, upon which he has been working for several years, and while near completion will remain to be finished by some other hand than that of the master.

On December 25th, 1867, Dr. Dudley was married to Sarah Keen, daughter of the Rev. John Perry Hall, of Philadelphia. They have two children, Perry Hall Dudley, M. D., of Hahnemann, '92, and a daughter, the wife of David Bailey Perkins.

During this long period of acquaintance and intimacy with Dr. Dudley and with many of his friends no word of criticism of his morals or professional ethics has ever been heard, his life having been consistent with that of a deacon of the Baptist church, with which he was connected.

In the language of the poet, his whole life has been to

"So live, that when thy summons comes to join
The innumerable caravan, which moves
To that mysterious realm, where each shall take
His chamber in the silent halls of death,
Thou go, not like the quarry-slave at night,
Scourged to his dungeon, but, sustained and soothed
By an unfaltering trust, approach thy grave,
Like one who wraps the drapery of his couch
About him, and lies down to pleasant dreams."

Farewell, brother!

C. S. MIDDLETON, M. D.

ARTERIOSCLEROSIS.

THERE is no condition of more interest or of more importance to the medical practitioner than arteriosclerosis. Arterial degeneration is one of the natural results of the wear

and tear to which the human organism is subjected, and is a process which invariably accompanies old age. The "strenuous life" of modern times, with its increased demand upon the activity of the nervous system and a decrease in muscular activity, has tended to bring about an increasingly large number of cases of cardio-vascular degeneration. In fact, the problem of arteriosclerosis is closely related with the problem of life itself and in seeking the cause of this disease and a method of preventing its progress we must go back to the study of the hereditary tendencies of the individual and of the environment under which he lives.

Recognizing the importance of this disease in modern medicine, the Medical Association of the Greater City of New York recently devoted an evening to its discussion. A full report of this meeting, together with the contents of the papers read, will be found in the *Boston Medical and Surgical Journal* of February 28th.

The etiology of arteriosclerosis is a question of great practical importance. We are aware of three factors, which have a close etiological relation to the disease; syphilis, long continued, heavy physical exertion and excessive mental activity or worry. The part played by the vessels themselves is not a mere passive wearing out of the arterial walls, similar to the rusting away of an iron pipe, but we find active pathological processes to be present, the result of the action of irritating toxins in the blood or of the demands of the organism for the continued maintenance of high blood pressure.

Clinically speaking, the visceral type of arteriosclerosis is the form of the disease which leads to the greatest amount of systemic disturbance and is the type we are most frequently called upon to treat. This can be explained by the fact that where the sclerosis of the arteries is a general process, such as is commonly met with in old age, the functions of all the organs of the body are correspondingly diminished, and the relative balance between the capacity of the organs and the requirements made upon them is not seriously disturbed. In the localized forms of visceral arteriosclerosis, however, we have a crippled organ called upon to assist in maintaining sufficient functional activity to meet the demands of an otherwise healthy body and being unable to perform its duty we have supervening symptoms of a general and local character. In those forms of arteriosclerosis which are confined to the

larger vessels, as the aorta, the femorals etc., the symptoms of disturbed function are comparatively few. Brooks attributes this to the fact that these vessels have little effect on the distribution of the blood, as their lumen remains generally constant, and even when it is considerably encroached upon the distribution of the blood is only slightly unbalanced.

With the trunks supplying the viscera conditions are almost reversed. These vessels have well developed muscular coats, by the physiological contraction and relaxation of which the blood supply of the organs is constantly altered during periods of activity or of rest. Any change of a pathological type which causes an encroachment upon the calibre of such a vessel or which alters the condition of its muscular coat, at once interferes with the delicate mechanism which controls the vascular supply of the organ, and we have as a result a state of chronic anæmia or chronic hyperæmia. With disturbance of the blood supply we have disturbance of function on the part of the organ involved, followed later by permanent structural alterations.

It is interesting to note, from a diagnostic standpoint, that the percentage of cases in which the arterial changes are limited to the visceral vessels is quite large. Thus, Brooks states that in a series of four hundred cases examined in New York there were three hundred and sixty-eight in which the visceral arteries were mostly or exclusively involved. The distribution of the disease was as follows: The coronary arteries in two hundred and seventy cases, the cerebral vessels in one hundred and seven, the renal vessels in eighty-one, the pancreatic in seventy-four, the hepatic in forty-three, the splenic in thirty-five, the spinal vessels in twenty, the pulmonary in sixteen, the celiac and its visceral branches in nineteen and the mesenteric in four instances. In the entire series of four hundred cases the superficial arteries were involved but one hundred and fifty-four times, and in four of these instances no appreciable change was present in the visceral trunks. From these observations we are forced to conclude that the condition of the superficial arteries is not a certain guide as to the state of the internal vessels and that in a very large percentage of instances in which palpation fails to show any alteration in the superficial vessels, very pronounced sclerosis of important visceral trunks may exist.

GLEANINGS

THE BAG OF A COUNTRY ACCOUCHEUR.—Peysonnie (*La Clin.*, January, 1907,) points out the difficulties under which country doctors work when attending confinements without the resources of a town or hospital, and often without the assistance of a midwife. The practitioner must be well provided with the necessary materials, but his chief trouble will lie in obtaining a sufficiency of boiling water in clean vessels, and of sheets and towels. He advises that the bag of the accoucheur be furnished with a small oval flat dish, a douche can to contain two liters with a long rubber tube, a glass nozzle in a cardboard box, an intrauterine sound of glass enclosed in a metal case, and packed with cotton wool, some borated vaseline, two packets of cotton wool, and some ether, ergot, and tabloids of corrosive sublimate. In addition he takes a rubber catheter, nailbrush, stethoscope, and one pair of Tarnier's forceps wrapped in a towel. A little case is also required with a few curved needles, some silkworm gut, and carbolized silk, as well as scissors and forceps. The ether with the aid of a flame is used to sterilize the forceps and other instruments, and the little dish is useful for making up the disinfectant lotions in. He considers that lacerations should always receive attention, as wounds of the vagina and perineum are frequent sources of infection, and grave complications may arise from them.—*British Medical Journal Supplement*, February 16, 1907.

THE GRAPE CURE IN CIRRHOSIS OF THE LIVER.—Cavazanni reported several years ago a case of cirrhosis of the liver which had progressed to the extent of hæmatemesis, oliguria, and ascites. All usual methods of treatment proving unavailing, the patient was fed upon ripe grapes up to five pounds daily. Remarkable improvement followed, until a sudden gastric hæmorrhage resulted fatally. Since then the author has instituted the treatment on five other patients in whom the diagnosis was unmistakable, and these likewise improved remarkably, the ascites disappearing without resort to paracentesis. Life was prolonged and a comfortable existence secured for periods ranging from one and a half to four years. Cavazanni believes that the cure depended upon the grape sugar, possibly with the assistance of ferments in the grape juice. It is not to be expected that the treatment brings about a return of the liver, spleen, and abdominal veins to the normal size, for such expectations cannot be realized.—*Riv. crit. di Clin. Med.*, 1907, Nos. 2 and 3.

A STUDY OF SHREDS IN THE URINE IN THEIR RELATION TO DIAGNOSIS AND PROGNOSIS.—De Santos Saxe in an exhaustive article showing careful clinical research presents the following summary and conclusions:

1. The scanty reference to shreds in most textbooks led him to a de-

tailed study of these elements in a large number of cases of chronic urethritis, prostatitis and vesiculitis.

2. Shreds are best studied after proper fixation in stained specimens according to the method outlined, Unna's polychrome stain being the preferred reagent for routine work, and Gram's stain when gonococci are to be demonstrated.

3. Urethral shreds proper may be divided into four varieties: pus shreds, muco-pus shreds, mucous shreds, and epithelial shreds, each of which has special naked eye and microscopic characteristics.

4. Several varieties of altered epithelia are found in urethral shreds, Those undergoing hyaline changes may be identified not only by the iodophile reaction, but by a peculiar degeneration as shown by their staining qualities with polychrome methylene blue.

5. Shreds composed of pure epithelia consisting of flat pavement cells with small nuclei are shed spontaneously, or after instrumentation, in the stage of the disease in which the superficial layers of the urethra become lined with squamous cells under the influence of subjacent submucous lesions.

6. Shreds from the prostate and vesicles include several varieties, which can be recognized under the microscope, but cannot be identified with the naked eye.

7. The so-called comma shreds in reality may be one of two varieties of structures. The true comma shred of Furbringer consists of hooklets of stratified epithelia, derived from the prostatic duct. A false variety of comma shreds is composed of bits of muco-pus shreds which roll up into a lump at one end.

8. The frequency of gonococci in urethral shreds is directly in proportion to the pus cells, and inversely as the proportion of mucus and epithelium in the specimen. This rule does not apply to prostatovesicular shreds.

9. The study of shreds is not of great value in the localization of the affection in the anterior or posterior urethra. The presence of prostatic or vesicular shreds which can be recognized microscopically is an aid to the localization of the process.

10. The study of urethral shreds is most valuable in determining the stage of the process, the order of appearance being with certain reservation as follows: Pus shreds, muco-pus shreds, mucous shreds, and epithelial shreds.

11. In the prognosis, the variety of urethral shreds present can have but a limited use. The author's studies have added nothing to the well-known rules. The fewer the shreds and the fewer the pus cells, therein, the better the prognosis. The larger the number of gonococci and of pus cells, the worse the prognosis as a rule. Marriage should not be sanctioned unless the terminal shred or shreds contain no pus cells for months, even after provocative measures, such as the drinking of beer.—*N. Y. Medical Journal*, March 2, 1907.

TREATMENT OF ICTHYOSIS.—W. Allen Jamieson in concluding a clinical paper on the nature and treatment of ichthyosis, says: Whatever may be the hidden cause of ichthyosis, it is evident that it must be regarded as an exaggerated development of epidermis, or as Thieberge well expresses it,

"hyperkeratosis with atrophy of the deep layers of the rete mucosum." It is doubtful if the quasi-inflammatory appearances described by Unna and Tommasoli are not accidental rather than inherent characteristics. Its essence consists then in undue retention of the corneous layer, and not as Brocq describes it "as a disease characterized by incessant epidermic desquamation." In fact, exfoliation is in abeyance. As to the cause of this retention we are quite in the dark. In treatment therefore, our efforts must be directed to promote and ensure regular systematic exfoliation of the unduly adherent and effete horny layers. There are various substances which have the power of thinning down artificially the epidermis. Sulphur is one, but if used, it not only adds to the abnormal aridity, but is apt to set up exudative and even inflammatory changes. Salicylic acid too, in the dilute form, in which it alone can be prudently employed over extensive areas and for a length of time, fails to accomplish what is needed. Resorcin, however, not only favors continual desquamation, but tends to leave the subjacent surface polished and pliant; hence its use is specially indicated. Combined with an oily base it dries up or is rubbed off. Glycerin from its hygroscopic properties is the excipient *par excellence*, but if applied alone is rather irritating. In union with starch, it forms a bland, persistent, soothing and softening medium, and, as has been seen, while in all cases so used, it proves eminently beneficial, if its action is begun early enough and steadily persevered in, it can effect what must be regarded as a cure.

At the same time, with all its qualifications, the resorcinized glycerin of starch alone would not enable us to get continuously rid of the ever newly-forming accretions of the epidermis. We must therefore have resource to a medicated soap, and a superfatted one with which resorcin and salicylic acid are incorporated—that which is so valuable in shortening the desquamative stage of scarlet fever—has proved adequate, and prepares the way for the subsequent glycerinization.

Internal remedies are of little use in ichthyosis. The only one which aids us is cod-liver oil, administered in small doses at night. Pilocarpin is inoperative in early treatment; unnecessary in later.—*British Medical Journal*, February 16, 1907.

ACOCANTHERA SCHIMPERI IN HEART DISEASE.—*Aconcanthera* is an East African tree which furnishes an arrow poison so subtle that a wound from it is rapidly fatal, even to elephants. From it is derived a glycoside, ouabain, which is chemically identical with strophanthin, but several times more powerful. In small doses, the action of *acocantheri* is similar to that of *digitalis* and quite as active. Stadelmann found it effective in some cases where *digitalis* was not; but in others it failed. Ouabain showed an action similar to that of *digalen*, but with the advantage that it is not painful in subcutaneous injection. These drugs are not yet on the market.—*Boston Medical and Surgical Journal*, February 28, 1907.

THE DIAGNOSIS AND MEDICAL TREATMENT OF GRAVES' DISEASE AND HYPERTHYROIDISM.—Alfred Stengel, M. D. *The Pennsylvania Medical Journal*, December, 1906, concludes a paper upon this subject as follows:

(1) The syndrome of hyperthyroidism which is met with in most characteristic form in typical cases of Graves' disease also attends mild and often transient enlargements or other pathological lesions of the thyroid gland. While distinguishable from ordinary Graves' disease by accurate diagnosis and while as a rule entirely different in their clinical course and prognosis, these cases must be included with Graves' disease under the more general heading of hyperthyroidism, because, in any case, a gradual transition and a termination in a severe form is possible.

(2) Hyperthyroidism is due to increased and perhaps perverted secretion of the gland and is therefore promoted by increased vascularity of the gland and hypertrophy of its secretory structure. Methods of treatment designed to reduce vascularity or to limit secretion functionally or by actual destruction of glandular substance should be investigated hopefully.

(3) General medical treatment including change of scene, rest, diet, and tonics often benefit milder cases and may mitigate symptoms even in the severer forms. Iron and arsenic; digitalis, strophanthus, and convallaria; atropine, ergot, and mild currents of Faradic or galvanic electricity are useful respectively in improving the blood, the general and the local circulation.

(4) Iodine is a dangerous drug and thyroid extract should not be employed. In some cases seemingly good results from the use of thyroid extracts have been reported. The explanation of this is difficult.

(5) Three forms of specific treatment have been suggested: (a) By the production of antitoxic substances; (b) by the preparation of cytolytic substances; and (c) by the use of X-rays. The statistical evidence in favor of the antitoxic sera such as the antithyroidin of Möbins, the milk of thyroidectomized goats and the like, is very encouraging but can not yet be fully accepted. The results obtained with the cytolytic serum of Rogers and Beebe are equally or even more encouraging and the treatment seems to rest upon a scientific basis. The methods of preparing the serum, however, require refinement and elimination of certain defects. The X-ray treatment has not been sufficiently used to justify a final expression of opinion as to its merits.—*Medical Review of Reviews*, February 25, 1907.

ÆTIOLOGIC FACTORS IN ARTERIOSCLEROSIS.—O. T. Osborne, A. M., M. D. (*Yale Medical Journal*, January, 1907), states that the ætologic causes that we can name as the most frequent forerunners of arteriosclerosis are old age, gout, kidney insufficiency, nervous strain, severe muscular exercise, chronic lead poisoning, syphilis, alcohol, if the kidneys are rendered by it insufficient, and severe infectious diseases. We also should not forget that chronic intestinal indigestion, perhaps from hyperalimentation, quite frequently from recurrent duodenitis, combined with constipation which allows the formation of chemical irritants which, circulating in the blood, primarily irritate the kidneys and secondarily may cause chronic endarteritis.

There may be too much suprarenal secretion at any age, or too little thyroid secretion at any age, but old age with its normal high arterial tension is probably due to an absence of thyroid secretion and the consequent, at least relative, increase of suprarenal secretion. A man with this increased pulse tension often has, perhaps, for years, good compensating

hypertrophy of the heart to overcome this increased peripheral resistance. Hence, as long as there is this increased power of propulsion of the blood the man has no trouble, but if anything upsets this muscular power he begins to have a sense of fatigue, low spirits, and some sort of general discomfort for which he may see a physician. If we recognize the cause of the trouble at this time and the coming arteriosclerosis and give him proper advice, the disease itself may be postponed for years. He should eat less, drink less, take regulated exercise to get more blood into his muscles and relieve the arteries, take regularly, once in so often, a period of business rest, and perhaps some proper medication. However, these very cases, so used to hypertension as they are, cannot stand large doses of drugs that cause arterial depression without complaining of malaise. This same high tension causes increased kidney activity, and this, plus the toxins absorbed from over-eating and drinking, with consequent imperfect digestion, little by little can irritate the kidneys until chronic interstitial nephritis is the outcome. Also, a heart can become incompetent on exertion, after years of this permanent high tension, even if arteriosclerosis as such is not discoverable.—*Medical Review of Reviews*, March, 1907.

THE ELIMINATION OF MERCURY BY THE URINE.—Welander (*Archiv. f. dermat. und syph.*, November, 1906). All observers have found that mercury, introduced into the system in various ways, is eliminated constantly and periodically and that it remains for some time in the system. Welander showed, in 1885, that not only is mercury eliminated by the urine, but also to a considerable extent by the fæces. Attempts were then made to determine quantitatively the amount of mercury excreted. By measuring the amount of mercury excreted after the various methods of administration, it was thought that a comparison could be made of the amount of the drug that was absorbed into the blood. A comparison of the elimination of mercury excreted after being administered by inunction, injection and by mouth follows:

1. In the administration by mouth the amount of absorption is uncertain, though it can be considerable. The time the drug remains in the system depends upon the amount of absorption and cannot be determined without a chemical examination in every case.

2. Subcutaneous injection of soluble salts, as the bichloride, is followed by rapid and powerful absorption and the drug remains for a considerable time in the system.

3. The insoluble preparations are divided into two classes: (a) thymolate of mercury, salicylic of mercury and calomel; (b) oleum cinereum and oleum mercuriol. Of these preparations the salicylate of mercury is the most useful. Injections of thymolate of mercury and calomel produce a powerful though not a rapid absorption. The drug remains long in the system, as after stopping treatment areas of mercury remain from which absorption steadily takes place. Ol. cinereum and ol. mercuriol are absorbed slowly and remain a considerable time.

The more rapid and powerful the absorption of mercury the quicker the symptoms of syphilis disappear. The longer the mercury remains in the body the longer time it will take for relapses to make their appearance. Accordingly, the method of administration of mercury will be the best

which produces the most rapid absorption, and in which the drug remains for the longest period of time in the body. According to the writer, the method of administration which best fulfills these conditions is the method of inunctions. Next in value to inunctions are injections of salicylate of mercury.—*Medical Review of Reviews*.

FURTHER OBSERVATIONS UPON THE TREATMENT OF DIFFUSE SEPTIC PERITONITIS FOLLOWING APPENDICITIS WITH A REPORT OF ONE HUNDRED AND FORTY-FIVE CASES TREATED BY THE ELEVATED HEAD AND TRUNK POSITIONS.—Dr. Russel S. Fowler, of Brooklyn, read this paper, and in conclusion stated the salient points in the treatment of these cases were as follows: 1. A small incision and the avoidance of evisceration. 2. Thorough cleansing of the primary focus of infection and removal of the appendix. 3. Vacuation and cleansing of all accessory abscess cavities and the pelvis before washing out the peritoneal cavity. 4. A rapid systemic flushing of the peritoneal cavity with hot saline. 5. The continuance of the saline flushing until the sutures were placed, and for the most part tied. 6. The provision of proper drainage for the pelvis, either by means of a large glass tube containing a capillary drainage strip emerging through the lower angle of the wound, or in females by a large calibre rubber tube filled with wicking passed through a posterior colpotomy incision. 7. The drainage of accessory abscess cavities with gauze or wicking. 8. The elevation of the head of the bed to accelerate the drainage of septic fluid into the pelvis, whence it could be removed through the tube, or in case of vaginal drainage find a ready exit. He stated that there were a few cases of diffuse septic peritonitis which might be safely closed without drainage.—*The Post-Graduate*, March, 1907.

METASTATIC AFFECTIONS OF THE EYE.—The author showed three illustrative cases. The first a young man who had a sudden attack of pain in one eye and obliteration of central part of field of vision. Was well except for a large crop of boils. Three days after attack, examination of eye showed a brilliant green mass springing from center of optic nerve, well defined, no appearance of structure. Its appearance suggested parasitic cyst. It was lacerated with a needle, but it only contained some curdy opaque material like pus. The eye was enucleated.

The swelling was found to be an abscess in the substance of the retina, having at its center a large mass of staphylococci. Recovery rapid.

The second case, a young man with large boil on neck, was suddenly seized with pain in eye and loss of sight. Ophthalmoscopically, he had retinal phlebetis well marked in one eye and slightly in the other. After prolonged treatment, one eye got well and the other became quiet. Later ulceration.

The third case, also a young man who had retinal phlebetis, followed by local keratitis profunda, after a serious attack of ptomaine poisoning. The fourth case, one of a diffuse exudation on the surface of the choroid, invading slowly, nearly the whole of it and producing in places, detachment of the retina. The patient was a young man suffering from a crop of boils on the neck. Treatment by antistaphylococci injections was commenced, but patient refused to continue it. The final result is not given.—W. T. Holmes Spicer, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

OSTEO-PERIOSTITIS AND SINUSITIS FOLLOWING DIPHTHERIA.—The case was that of a young girl of 17, in whom, five weeks after an attack of diphtheria, there developed a phlegmonous inflammation of the right eyebrow. An incision emptied pus, and the probe showed bone bare of periosteum; but did not enter the sinus. By this time any characteristic bacilli had disappeared; only staphylococci being found. The wound seemed to heal normally. Two weeks later there was a fresh inflammatory attack. The anterior wall of the sinus broke down, giving issue to a characteristic ropy fluid.

The radical operation being determined upon, a long, curved incision, parallel to the eyebrow, was made, uncovering the region of the sinus. A large sequestrum, $2 \times 2\frac{1}{2}$ cm. was removed, and the remainder of the interior wall resected with cutting forceps. The mucus lining was curetted. The fronto-nasal was probed, and the cavity drained by gauze. Healing normal.

Eighteen days after, a fresh attack of inflammation, with the elimination of a small sequestrum. After apparent healing, a third attack of inflammation again occurred.—Dr. Moisseuier, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

TRAUMATIC ENOPHTHALMUS.—The author reports the case of a man of 28, who received a violent blow, with the handle of a shovel, in the orbital region of the right side. He lost consciousness for only a couple of minutes. During the first days there was epistaxis and hemoptysis, and the eyelids became swollen and painful. This swelling persisted for about a dozen days; the pain longer. After disappearance of the swelling, the globe appeared sunken and a little depressed; about 10 mm. enophthalmus and 2 mm. depression. Mydriasis, cloudiness of the media, which cleared up after two weeks; diplopia and two small hemorrhages at the superior margin of the disc. Some narrowing of the visual field.

There was a wound and a depression of the bone at the inner orbital margin, and a radiograph showed a pushing backward of the ascending portion of the superior maxilla. Treatment unavailing.—Dr. Chillous, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

THE EFFECTS OF PROLONGED LACTATION OF THE EYES.—The author writes of the effect of prolonged lactation upon the eyes and to this cause attributes many cases of eye trouble among nursing women.

He describes a case of retro-bulbar neuritis as one of this nature. The patient was 25 years old and had been nursing for fourteen months. She complained of sensitiveness of the eyeballs to movement and pressure with failing sight. Examination showed swollen veins, central scotoma and papillitis of the left eye. Within a week the right eye became blind. Both eyes improved rapidly until recovery was almost perfect. The essentials of treatment were weaning the baby, calomel, iron and bitter tonics.

The writer also mentions a case of neuro-retinitis with scotoma of both eyes in a mother who was nursing a child more than a year old, but other symptoms pointed to diabetes as the most probable factor in this case.—H. Moulton, M. D., *Ophthalmic Record.*

WILLIAM SPENCER, M. D.

A NEW EYE SYMPTOM IN GRAVE'S DISEASE.—Attention is called to what is considered as a new eye symptom in Grave's disease, viz.: the difficulty experienced in everting the lids of some patients, and reports three cases. In the first case, that of a woman of 29, the eversion of the lid of the right eye caused so much strain and pressure on the tarsal conjunctiva that the latter was completely blanched in the center. The eye seemed larger than the left, looked crooked and did not close. At that time she presented no symptoms of Graves' disease, but six years later had well marked goitre, while the resistance of the lid to eversion had completely disappeared.

In the second case a woman aged 42 years, had Graefe's and Dalrymple's signs, with moderate goitre. Her upper lid could be everted only partially and with great difficulty. The center edge of the tarsus was bent back out of sight, and the blood pressed out of the tarsal plate and conjunctiva.

In the third case, a woman aged 27, Jellinek's and Rosin's signs were present. Graefe's sign was slightly marked, and there was puffiness of the lids with excessive lachrymation. It was impossible to evert the lids in the usual way. The best way was to push down the upper edge of the tarsal plate with a probe, and the eversion thus obtained was maintained with difficulty.

It is Dr. Gifford's opinion that this lid resistance is due to an unnatural irritability of one or both levators of the upper lid and that the affected muscle is the non-striated levator of Müller.

In conclusion he claims that one of the earliest symptoms in certain cases of Grave's disease is marked involuntary resistance to eversion of the upper lids.—Dr. H. Gifford, *Ophthalmic Record*.

WILLIAM SPENCER, M. D

ECZEMA. TREATMENT OF WITH NORMAL SALT SOLUTIONS.—Chambers has had marked success in the treatment of acute eczemas with normal salt solutions. Eight to ten thicknesses of cheese cloth are saturated with the solution and applied to the diseased areas. Oiled silk is then covered over the cheese cloth to prevent evaporation and drying. If the eczema is of an impetiginous nature the dressing should be changed twice a day, and boric acid should be added to the normal saline solution in sufficient quantities to make the proportion one to sixty. Thorough washing with this same solution should be practiced with each change of dressing. The dressing should be discontinued when the inflammation diminishes and when there is an absence of crusting. Chambers then applies a soothing ointment, such as Lassar's Paste. In the latter stages mildly stimulating ointments may be required.—*British Med. Jour.*, October, 1906.

RALPH BERNSTEIN.

ECZEMA. TREATMENT OF.—Kromayer. In acute eczemas Kromayer recommends the use of ointments which protect the skin and at the same time absorb secretions; great care should be taken in differentiating between the chronic cases, in which tar is indicated and those known as primarily chronic, in which sulphur should be employed. In those cases in which tar is indicated Kromayer finds anthrasol of value. In the primarily

chronic cases, Kromayer finds pyrogallic acid and chrysarobin of more value than sulphur.

Eczemas with marked itching are most obstinate, especially when chronic, and when occurring in exacerbations. In these cases Kromayer recommends a pyrogollic acid of diminished toxicity known as lenigallol, in ten per cent. strength, using zinc oxide ointment as a base. This ointment should be applied at the beginning of the exacerbations. Ten per cent. of anthrasol is added to this ointment when amelioration takes place; the treatment is then finally finished with a ten per cent. anthrasol ointment.—*Berlin Klin. Woch.*, June, 1906.

RALPH BERNSTEIN.

ECZEMA. X-RAY TREATMENT OF.—Boggs recommends the use of the Roentgen rays in those cases of eczema which are decidedly chronic and in which there is inflammatory exudation going on. The rays seem to cause the absorption of the exudate. When there is systemic derangement, or the disease is caused by a local irritant, the rays should not be used until the causes have been removed. If these chronic cases do not improve under this form of treatment, the itching is at least nearly always allayed.—*Jour. A. M. A.*, January, 1907.

RALPH BERNSTEIN.

VENOUS THROMBOSIS IN THE PUERPERIUM.—Riellander says that several cases of thrombosis in the puerperium occurring after normal or slightly complicated labors and which set in as unexpectedly as a flash of lightning from a clear sky, gave the impulse to this inquiry in reference to the cases which had formerly occurred in the Marburg Clinic. Since 1888 among about 6,000 labors, 23 cases are recorded, amounting to about 0.4%. The accident was most frequent among puerpera and dutiparæ. As regards the time of onset, it occurred from the second to the twenty-second day post partum. Patients previously affected by varicoses seemed to be predisposed; and in such cases the disease appeared to remain localized in the superficial veins and occurred comparatively early after delivery. The most serious cases are those occurring about the fourth day post partum, and in these also the larger and deeper veins are affected with a tendency to spread to the veins of the pelvis.

Patients who had lost much blood during the delivery seemed to be predisposed. The author does not think that infection during delivery is the cause in every case. Regarding the symptoms the author refers at some length to Mahler's sign, which consists of a progressively increasing pulse rate while the temperature remains about the same as before. Oedema is an almost constant attendant upon thrombosis of the veins of the leg, but is usually absent when the pelvic veins are affected, unless the thrombosis has extended to the vessels of the leg. Embolism of the pulmonary artery occurs much more frequently in thrombosis of the large pelvic veins.—*Monatsschr. f. Geb.* Bd. 24, 154.

THEODORE J. GRAMM, M. D.

THE EFFECT OF SURGICAL OPERATIONS UPON THOSE INSANE.—LeRoy Broun, in an article reviewing his own work at the Manhattan State Hospital, says that within the last ten years, the opinion of alienists and surgeons have reached a common plane. Alienists almost universally now recognize the importance of rectifying and repairing pathological states existing among insane patients under their charge, whenever such procedures will improve the physical and nervous health of the individual. The surgeon recognizes that no operation should be performed except to rectify conditions disturbing the patient's physical well-being or endangering the life of the individual. Such a common ground has been reached largely through the writings of Manton, who for twenty-five years has been operating in the East Michigan Insane Hospital. The records of various insane hospitals show that at least 75% of the female patients have some form of pelvic or abdominal disease. These patients have a right to be relieved of any physical suffering arising from such pathological conditions. The fact that they are insane should have no bearing upon giving relief, except in so far as their mental state should preclude for the time any surgical operation. In this spirit all operations were done under the author's direction, and he says in the entire range of operations upon the insane there has been no instance in which a patient's mental condition has been aggravated by a proper surgical procedure. Manton makes the same statement after operating for a quarter of a century, and so does Picque, who has been operating twelve years as surgeon to the Department of the Seine, including four hospitals in and around Paris.—*Amer. Jr. Obs.* Vol. 53, 808.

THEODORE J. GRAMM, M. D.

THE REACTION OF THE VAGINAL SECRETION.—Bengelsdorff (Helsingfors). Since the appearance of Doederlein's book in 1892, on the vaginal secretion in its relation to puerperal fever, this subject has attracted attention. Doederlein described the normal vaginal secretion of the pregnant woman as having an acid reaction, containing but few white blood corpuscles and constantly showing the presence of so-called vaginal bacilli, upon whose life activity the acid reaction was believed to depend, and which later condition exerted a certain bactericidal action upon pathogenic germs and hence acted in a protecting or prophylactic way against infection in pregnant women. Since that time the subject has been much discussed and actively examined. In line with such investigations the present author has attempted to determine the condition of the vaginal secretion in the new born, and has examined twenty infants soon after birth. He finds that the vaginal secretion of the child at this time is alkaline or neutral and occasionally acid in reaction. Already during the first few hours or days the reaction changes to acid. In this change in reaction the bacteria play no part since it occurs also in those cases in which no bacteria can be demonstrated. Two of the twenty cases have an acid reaction immediately after birth, and this would indicate that the secretion which is formed during intrauterine life is acid. In these two cases the orifice of the hymen was very small and was covered by well developed labia minora. If we assume that the secretion primarily formed in the vagina is acid, as the author's studies indicate, there must be some cause for the reaction being other than acid at birth. This cause is probably to

be found in the distinct alkalinity of the amniotic fluid which surrounds the fetus and probably also affects the reaction of the vaginal secretion. During the first days after birth there is often a profuse discharge from the vagina, and in two or three days this becomes acid. This change occurs even in those cases where bacteria could not be demonstrated. The bacterial flora of the infantile vagina is quite simple. *Bacterium coli* and *streptococcus albus* are mostly found. There are also diplococci, bacilli not staining by Gram's method, and a few other bacteria. In no case was it possible to demonstrate the vaginal bacilli of Doederlein, so that it would seem as if this micro-organism plays no part in determining the reaction, at least during the first days of the life of the child.—*Arch. f. Gyn.* Bd. 78, 447.

THEODORE J. GRAMM, M. D.

PUERPERAL ECLAMPSIA.—In an article on this subject, Moran (Washington, D. C.) gives the statistics of the Columbia Hospital, which show that among 2,035 cases of labor there were 28 cases of eclampsia. Sixteen cases occurred before labor, seven during labor, and three after labor. Earliest during pregnancy; five months' gestation; latest after labor ten days. The presentation in twenty-six cases was cephalic. Method of delivery: artificial, 15; natural, 13; Cæsarian section, 1; vaginal Cæsarian section, 2; induction of labor and forceps, 1; manual delivery of breech, 1; forceps, 10. The mortality was 25%.

As a rule the convulsions ceased after the evacuation of the uterus or were less severe, though in one case there were 49, and in another 12 seizures after delivery; both were terminated by artificial cervical dilatation and high forceps, and recovered, while a third had 13 following a very natural delivery, and succumbed. Headache, disturbance of vision, insomnia, precordial distress and vomiting, together with oedema, particularly of the face and upper extremities, associated with high arterial tension, albuminuria, diminished excretion of urine and uræa afford an array of signs and symptoms that may be regarded as almost pathognomonic. Rarely its development is so rapid that the premonitory manifestations may be absent or so slightly marked as to be overlooked. Again we sometimes encounter cases which are very insidious in onset. The patient is listless, apathetic, with anorexia and some nervous twitching, and gradually lapses into a state of profound coma, which may end in death. These different types quite likely depend upon the degree of virulence, or it may be that there are several kinds of intoxication of pregnancy, just as there are varieties of puerperal infection. The pulse is a valuable criterion for prognosis. When it is full and strong, and below 100, a favorable outcome usually results; if, however, it is weak, rapid, over 130, and increasing in frequency, with deepening coma, the case is likely to prove fatal.—*Amer. Jr. Obs.* Vol. 53, p. 609.

THEODORE J. GRAMM, M. D.

SOME PHASES OF THE FEEDING PROBLEM.—L. Emmett Holt, with his masterly grasp of the subject, deplors the lack of uniformity that exists in the teaching of infant feeding and makes a plea for simpler methods and for the more universal recognition of certain fundamental principles upon which successful infant feeding alone can be based.

One of the chief errors that is encountered by the specialist is the ill effects of too high fat percentages in the formulæ. It is not to be expected

that all pediatricists will agree upon the exact percentages of milk to be prescribed in any given case, but there should be some uniformity of opinion as to just how much fat, for example, a child may take and beyond which amount it will not be safe to go.

One of the greatest drawbacks to the study of infant feeding has been the multiplicity of complicated methods and the innumerable formulæ which have been published in the past years. There is no necessity for working with tenths of a per cent., in figuring out the composition of a given formula; most mistakes are made in threes and fours of percentages. For example, a certain physician was giving a child what he believed to be 4% fat and 3% proteids, when in reality he was giving it a mixture which figured out 7% fat and 2.25% proteids.

Dr. Holt believes that the physician can secure almost all combinations he needs by means of the three groups of formulæ suggested in his writings in which the proportion of fat to proteids is 3 to 1; 2 to 1; or 1 to 1. He wisely says, "My own idea is that the essential thing is simplicity with moderate flexibility and that the man who has learned to use wisely a few formulæ, like the man who knows well a few drugs, is easily master of the situation."

Dr. Holt deplotes the use of the excessively high fat percentages. From his own observation he is convinced that very great harm constantly occurs from the high fats so often used at the present time. Some physicians use from 6 to 8, even 10 per cent. fat in their formulæ. He believes that even with healthy infants it is never wise to carry the percentage of fat in the formula above 4%; there are many infants in which three per cent. would be excessive. There are even cases, especially in certain digestive derangements in which 1% is the limit. He makes the rather astonishing statement that he sees more failures in the use of modified milk from ignoring the rules regarding the proportion of fat than from any other single cause.

How shall we calculate the percentage of fat and proteids in a given milk mixture? The following rule is a simple one and one that is easily remembered and carried out: Multiply the percentage of fat in the milk, top-milk, or milk and cream mixture, by the number of ounces of milk called for in the formula and divide the product by the total number of ounces in the formula; e. g., there are in a formula calling for 40 ounces, 10 ounces of a 10% top-milk; 10 times 10 equals 100; this divided by 40 equals 2.5% fat in the formula. The proteid is calculated in the same way.

The following essential things must be taught to students in order that there will be substantial agreement among practitioners in this subject:

1. The normal range of milk percentages borne by infants.
2. The approximate percentage composition of the milk, cream and top-milk which are being used in feeding.
3. The simplest possible method of obtaining the percentages desired from these ingredients.
4. The necessity for translating at once into percentages any milk formula the patient may be using and a simple method of making such a calculation.—*Archives of Pediatrics*, November, 1906.

C. SIGMUND RAUE, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

OUR MISTAKES AND THEIRS.—Nothing has given us more pleasure and satisfaction than a perusal of the address delivered before the Boston Homœopathic Medical Society at its December meeting, by Dr. Richard C. Cabot, of Harvard University, and afterwards printed in *The New England Medical Gazette*. It was the fairest, most plainly stated and probably the most precise exposition of the differences and agreements between the two schools of medicine that has ever appeared. It gives a list of our mistakes and theirs, and suggestions for further elimination of these. While perhaps many of the homœopathic school would differ from the able writer on some points, there can be no disagreement upon the fact that viewed from his own particular standpoint, and to a large extent from ours, he has given to the medical profession of both schools an essay that will have a far reaching effect in conciliating the antagonism that has existed between them. If it is read with equal pleasure by the members of his own school as the members of ours, the amount of good it will accomplish is great.

That Doctor Cabot is in search of truth and willing to acknowledge it wherever found goes without saying, and that fifty years ago a person of his eminence holding the same views would have been forced to abandon his school and come over completely into the homœopathic camp, goes equally without saying, for history records many such instances.

The growth of a new generation since the former bitter controversies between the schools is put forward as a reason for the disappearance of many of the grounds of difference, and we should welcome this new generation. The question naturally arises, What proportion has this new generation attained? Also how new is it? We agree heartily with the doctor's opinion that there are "fools, fanatics and knaves" in both schools, and we might go further and say that those who are "intelligent, high-minded and eager for the truth wherever found" are yet in the minority in both schools.

We rejoice further in the expressed opinion that personal antagonism has disappeared and that homœopaths are looked upon very much as other physicians. And we hope that this condition of affairs originating, we may say, in the Hub, may, in the revolution of the wheel of time, be thrown out to all parts of the world, where, at present, such does not obtain. There is need right now that some of this anti-antagonistic material strike somewhere in the vicinity of the allopathic medical legislative committees of New York and Pennsylvania.

Of the part of the essay devoted to our common agreements there can be nothing said further than that we believe quite a part of it is the agreement

that exists between Dr. Cabot himself rather than his school, and probably the major part, but not all of the homœopathic school. An exception might be taken to the remark that English homœopathic writers exhibit a spirit of hostility to surgery; this is certainly not to the manual art of surgery, but if such exists, and it is probably correct that there is some hostility to surgery in our school both here and abroad, it is only, so to speak, a conservative hostility, and has its genesis in the experience of the school that under our system of treatment surgery is rendered less frequently indicated, and when necessary surgery is combined with our therapeutic measures, and by therapeutic here we mean homœopathic drug application, gives patients a little better chance. Probably thousands of our physicians could testify truly to this from personal experience.

We do not know further whether the belief is universal in the school of Dr. Cabot, that quinine invariably is indicated where the malarial parasite is found, but we know it is not so in the homœopathic school, and that our practitioners who have had the largest experience in the treatment of intermittent malarial fevers do not use it to any great extent. This, then, is a point of agreement that we must eliminate, but the essayist cannot be criticised for this, nor, in fact, for any of his statements, they are fair-minded and exact as he sees them.

In discussing their mistakes he condemns, and we believe rightly, the term "Regular," and many similar terms that have been to us quite as scarlet as the word "Allopath" has been to them. We do not concede, and probably it was not asserted, that a complete list of the mistakes of either side was presented, and we might not agree as to whether the mistakes mentioned were real ones on both sides, but certain it is that Dr. Cabot's valuable paper is a classic, and we trust that it will command as much respect in his school as it has in ours.

What are we going to do about it? We are of the belief that there will always be homœopathic physicians in contra-distinction to what we have to distinguish as allopathic or old school physicians, and by homœopathic physicians we mean the kind without a stereotyped, made-to-order definition who will assume that the whole field of medical knowledge is theirs as they have done from the earliest days of the art; and who in their practice will follow the principle of *Similia similibus curantur*; and we believe further that our old school friends will see as we believe they have done for many decades that our successes in the treatment of disease have been at least equal to theirs, and will acknowledge it as they have not done. There may come a time when distinctive lines can be honorably effaced, but it will not be until the "new generation" has increased from a hundred or so to far grander proportions. When our students shall have credit in all medical colleges; when not only we shall be invited to join their societies, but be able to do so acknowledging, if we so please, that we practice homœopathic medicine exclusively, when allopathic physicians shall be willing to accept any test of the relative value of drug action in disease; when they shall attend our societies, take our periodicals, purchase our literature and acknowledge its value and be willing, *de facto*, to show all this then we can cease feeling proud that we are homœopathic physicians.

We are not one to go into a hysteria because some celebrated authority

of the older schools pats us on the head and tells us that we operate as well as he does, and invites us to assist him in his clinic, and if we were a homœopathic surgeon with any respect for ourself we would scorn rather than boast of such pedantic patronage. Yet we know it is done. Nor are we one to have a far-off look of superior importance because some noted old school health official and hygienic experts have responded to our invitation to present to us, a homœopath, ideas that we ourselves know can be found in our own school as well as in theirs. Yet we see it done frequently, and the more it is done the more far-off and superior becomes the look of importance. Nor are we one to think that because some old school periodical has condescended to publish our lucubrations that homœopathy is benefited thereby, or that our own status in the world of medical thought is lifted a single story higher than it would have been if published in our own periodicals.

We desire to be met as Dr. Cabot has met us, on the level; he has done what many of the members of our own school actually seem ashamed to do, and acknowledged that a homœopath is quite as good as an allopath every time, that all make mistakes, but that the specialty of mistake making is not the exclusive property of either school.—*Medical Century*.

AN EPISTAXIS CASE.—In reply to your inquiry respecting the treatment of hemophilia (the congenital hemorrhagic diathesis, in consequence of which even the slightest wounds bleed easily and immoderately), I venture to submit the results of my experience of forty years' practice of homœopathy. On three occasions I have been confronted by desperate cases which had eluded the skill and kindness of the medical attendants. In two of these the hemorrhage arose from the sockets of recently extracted teeth; blood welled up from each cavity in spite of pledgets of absorbent cotton saturated with tannin and glycerine and styptic collodion and ultimately appeared as a clot in the urinal, evincing hematuria; the eyelids became purple and the face edematous. In despair the attendant sought my advice. I ordered phosphorus (6c) five drops every half hour, with the happiest results. The third case was one of intractable epistaxis occurring at the critical age, in the mother of one of the patients mentioned, who had evidently inherited the predisposition from her parent. Quite recently phosphorus (6) quite overcame an epistaxis which had resisted ordinary treatment by hamam., secale, crocus, erigeron in succession; after six doses of phosphorus (every half hour) hemorrhage entirely ceased. It is well, I think, to insert a pledget of lintine in the anterior nares to encourage the formation of a clot, removing it after twenty-four hours; during the flow let both arms be held up by the side of the head; by this expedient the flow is modified.—Thomas Simpson, in *Homœopathic World*, March 1, 1907.

THE INFLUENCE OF HOMŒOPATHIC REMEDIES UPON SYMPTOMS FOUND IN ACTUAL MENTAL DISORDERS.—By George S. Adams, M. D. Ignatia is frequently indicated in depressed states, especially simple melancholia, without delusions or hallucinations, and it promptly relieves this condition. The delusion of having committed the unpardonable sin is sometimes relieved by ignatia, but aurum metallicum is better indicated. With aurum

there is extreme depression and always the sense of utter hopelessness as to the future. Kali phos. is indicated in depression with irritability. This is less marked than the nux vomica irritability and there is more physical exhaustion. Phos. acid finds occasional use where the depressed patient is very homesick. It will seldom complete the cure, but will relieve the symptom promptly.

China is also indicated as a mental remedy when there is periodicity,—that is, the patient is one day bright and cheerful and the next day apathetic and indifferent. Nux vomica has a wider range of action and is prescribed nearly as often as belladonna. It is usually indicated in acute alcoholic insanity (delirium tremens), where there is the characteristic irritability and the active hallucinations of sight. Here again belladonna is indicated when the hallucinations are extremely active and there is a greater rise of temperature and less irritability. For chronic alcoholic insanity, with its constant irritability, dissatisfaction with everyone and everything, and with the delusions of persecution and often disagreeable parathetic sensations, nux vomica is the remedy that meets this mental state best.

Picric acid is one of the newer remedies that cannot be left out of consideration. The apathy, indifference and exhaustion is very marked and if there is also a history of sexual excesses, picric acid is there to relieve.

Another remedy very frequently prescribed in this hospital is zanthoxylum. My attention was called to this remedy by Dr. N. Emmons Paine nearly twenty years ago, and I have found it a very satisfactory remedy. When a patient comes to the hospital thin, emaciated, assimilation poor, and the symptoms of neurasthenia,—insomnia, sleeplessness and occipital headache, no remedy brings about an improved mental and bodily condition better than zanthoxylum. It is a remedy that should have a wide field of usefulness for the general practitioner.

We prescribe many other remedies for mental conditions with benefit, but physical conditions give the indications for their use and I have given only such mental remedies as can be depended upon to remove the patient's condition.—*New England Medical Gazette.*

A BOVISTA CASE.—By Lawrence M. Stanton, M. D., New York City. Bovista cases are not common, not in my practice at least, so it seems to me that almost any case in which the remedy clearly cures is a case worthy to be reported.

The case in point is one of amenorrhea, occurring in a young anæmic woman, and presenting the following symptoms: The menses have been entirely absent for the past five months. The patient is very nervous, is depressed and cries a great deal. Naturally dexterous, has become very awkward in the use of her hands and lets things fall from them.

Frequent palpitation of the heart. Occasional nose bleed. The tongue is indented, showing the imprint of the teeth on its edges. The patient feels very much worse in the morning—all the forenoon and better as the afternoon and evening comes on.

Bovista 9 c., acted very beautifully in this case. The menses reappeared very soon, within a week, I think, and remained regular. The nervous state and indeed the whole condition promptly cleared away. The

patient came through her winter's work with unwonted strength and energy.

The case seems an interesting one in several ways. Bovista, I had been in the habit of thinking, was particularly indicated in menorrhagia and metrorrhagia. Here was a case of amenorrhea that had been cured by its use.

The morning aggravation was a marked feature and was entirely covered by bovista.

The patient's clumsiness with her hands and the disposition to let things drop from them were genuine symptoms—not mythical, nor to be relegated to the shelf of homœopathic absurdity, so-called.

The only symptom on the patient's part that did not seem to fall into line with the remedy was that of the tongue, the indentation, the tongue taking the impression of the teeth. It did not occur to me at the time, but I have since thought that this, after all, might be in keeping with the drug's action. That if the classic bovista fingers take the impression of blunt instruments, scissors, etc., why should not the tongue, by analogy at least, take the teeth's imprint. Unfortunately I do not remember whether this was changed by the remedy.—*The Critique*.

NON-UNION OF FRACTURE HEALED BY CALCAREA PHOS. AND CALCAREA FLUORICA.—Dr. W. E. Bartlett, of Kirkmansville, Ky., had a compound comminuted fracture of both tibia and fibula. There was non-union. Later he went to a hospital, where an operation was performed to get the parts to unite. Everything seemed favorable at first, and yet after nine weeks the bones were still not united. In the *Medical World* of January, 1906, he asked for advice. Here is what he has to say:

"After the *World's* statement of my case I began to receive letters telling me of various things to do and not to do, and some prescribing remedies that had never failed them in curing each and every case of delayed union of bones, and most of the writers had done quite an extensive practice in this kind of injuries where the bones had failed to unite. But as I had only one leg broken (thank God) to try their remedies on, I could only use one remedy at a time. I was using sulfid of calcium when I received a letter from a homœopathic brother, Dr. C. J. Loizeaux, of Des Moines, Iowa, and he prescribed and sent me some tablets of calcarea phos. 6 x, which he had used successfully on his brother in a case similar to mine. I began the use of his remedy at once; and, strange to say, in less than a month after beginning the use of his remedy I had a pretty fair soft union. When I had used what he sent, I wrote him asking where I could get more; he sent me some more and also sent another kind, called calcarea fluorica, which he told me to take alternately with the first named. I can now [This was written April 10.—*Ed.*] walk across my office, a room 16 feet square, without crutch or cane, and it was only about six or eight weeks after beginning his medicine that I could bear nearly or quite all my weight on the broken leg."—*The Medical Forum*.

THE INFLUENCE OF CONDITIONS.—By Frank W. Patch, M. D., Framingham, Mo. As physicians I do not believe we always fully comprehend the difference between actual disease and states of disharmony brought

about through abuse or neglect even of the more external laws—for as there is an inner harmony, disturbance of which may result in organic disease, there is, likewise, an harmony of externals without which we endure lives of constant irritation frequently resulting in nervous or mental phenomena or aggravation of more serious states. Of course it goes without saying that all miasmatic diseases are due to the most deep-seated inharmony, and we know that the only way to bring order or health out of this class of disease is through the use of the truly homœopathic remedy; no method of diet, no correction of the minor ills of unhygienic surroundings, nothing will do more than moderate in some slight degree any deep seated miasm except the remedy selected according to our law. But before we get to the place where the law can be most advantageously applied there may be much clearing away of rubbish, so to speak, and after all we may find that we are not dealing with a true miasm and that our preliminary measures have brought about the order we sought.

I believe that we are handicapped far more to-day in our use of remedies, by many intellectual and mental states in our patients than by the condiments and cosmetics which the early men were so careful to banish. The conditions of society are largely accountable for many problems that we have to meet, and we may do a great deal to counteract some of these evils if we bring our influence to bear at the right time and place. We must study to investigate causes more thoroughly and analyze them more thoughtfully and painstakingly. Many patients suffer great disability through bad management, through a failure on the part of the physician to correct evident abuses, through unwise and misdirected care, through laxity of system in their daily lives, through a flaccid use of physical and mental powers, through careless thought, through an irresponsible childhood or useless old age. The pursuit of wealth and the satisfied acceptance of poverty are alike at fault. Self centering in place of a world interest; self-gratulation rather than humility, are all crying evils that it should be the business of the physician to correct. Then again we have that large class of misplaced people. Through lack of definite stamina and the power of self analysis or by reason of improperly directed education they have never really lived, but have simply drifted through the world; they are uncongenial in occupation, incompatible in marriage, wrongly placed in business and without religious understanding. They have followed lines of least resistance and come to no understanding with themselves, and occupy no position in the community. Pity them; we cannot criticise, they are seldom actively blameworthy. They need our help and our most intelligent sympathy. They are absolutely out of harmony, externally and internally. They are seldom ready for medicine, if by medicine we mean drugs, but they respond wonderfully to correct and definite moral principles applied with unsparing intelligence, with severity perhaps, always with kindness.

The great physician rises head and shoulders above our mere givers of drugs, and why? Certainly not because his armamentarium differs widely from that of his brother, not because he gives more medicine or less than you or me, but because his remedies are "mixed with brains, sir!" or in other words because of his intellectual grasp of all these problems with which every one of us are surrounded and his ability to reflect the Divine,

Christlike light into the lives of those who need. It is said that the family physician has usurped the place in society once held by the clergyman. In a minor degree this may be true; less so, I believe, than should be the case.
—*The Medical Advance.*

PRACTICAL HINTS.—*Juglans Cin.*—Throat feels swollen, with pain on the right side. Chronic inflammation of the throat, with general debility.

Kali Bichrom.—Hawking of much thick tenacious mucus in the morning. Bladder-like appearance of the uvula, with much swelling, but very little redness.

Kali Carb.—Sticking pain in the pharynx as if there were a fish bone in it.

Lachesis.—Hawking of mucus, with rawness in the throat. Dryness in throat without thirst. Throat seems swollen, as if two large lumps came together, on empty swallowing; better from swallowing food. Feeling a crumb of bread left sticking in the throat. Tonsillitis, worse on left side, choking when swallowing; or: when swallowing, pains from throat to ear. Neck sensitive to touch. Liquids cause more difficulty in swallowing than solids.

Lilium Tig.—Hawking of mucus, with constant nausea.

Lobelia Infl.—Sensation as if the esophagus contracted itself from below upwards. Sensation as of a lump in the pit of the throat.

Lycopodium.—Feeling as if a ball rose from below up into the throat. Feeling of constriction in throat, nothing can be swallowed; food and drink regurgitate through the nose.

Mercurius Viv.—Painful dryness of the throat, with mouth full of saliva; pressure on swallowing. Suppuration of the tonsils, with sharp, sticking pain in fauces when swallowing. Metallic taste.

Mercurius Corr.—Throat intensely inflamed and swollen, preventing swallowing and threatening suffocation. Violent burning pain in throat and esophagus; aggravated by slightest external pressure. Uvula swollen, elongated, dark red.

Mercurius Prot.—Posterior wall of pharynx dotted with patches of mucus and small spots which look ulcerated. Bad breath.

Mezereum.—Burning in the throat, pharynx and esophagus.

Naja.—Constriction or irritation of the larynx, giving rise to coughing.

Natrum Carb.—Violent hawking up of thick mucus, which constantly collects again. Swelling of the submaxillary glands.

Nitric Ac.—Pricking as from a splinter in the throat worse when swallowing. Cracking in maxillary articulation when chewing. Diphtheritic membrane on tonsils and fauces, extending to mouth, lips, nose. Swallowing very difficult, as from constriction of the pharynx. Bad breath.

Nux Vom.—Throat raw, sore, rough, as if scraped.

Phytolacca.—Sore throat, swelling of the soft palate in the morning. Feeling when swallowing as of a lump in the throat. Great dryness in the throat, inducing coughing. Dryness, soreness, dullness and roughness of the throat, all the time. Difficult swallowing; with every attempt excruciating shooting pains through both ears.

Plumbum.—Constriction of the throat when trying to swallow.

Podophyllum.—Sore throat, commencing on the right side and going to the left. Rattling of mucus in the throat.

Rhus Glab.—On waking clots of blood are expelled from the throat.

Rhus Tox.—Parotid and submaxillary gland hard and swollen.

Rumex.—Excoriated feeling in the throat, with secretion of mucus in the upper part of the throat. Aching in the pharynx, with collection of tough mucus in the fauces.

Sambucus.—Hoarseness, with much tough mucus in the larynx.

Sanguinarium Nitricum.—Soreness, rawness and roughness on the right tonsil, with difficulty in swallowing. Great accumulation of mucus in the throat and bronchi.

Santonine.—Choking feeling in the throat, very severe at times; complete loss of appetite. Dry, hacking cough, tickling in the larynx and wind-pipe.

Spongia.—Thyroid gland swollen and hard, with suffocative attacks at night.

Stramonium.—Difficult deglutition, from spasmodic constriction of the throat. Great dryness of the throat.

Sulphur.—Scraping in the throat; hawking and clearing throat. Stitches in throat when swallowing.

Sulphur Iod.—Sore throat in the morning.

Sumbul.—Tenacious mucus in the throat.

Veratrum Alb.—Scraping in the throat.

Veratrum Vir.—Spasms of the esophagus, with or without rising of frothy, bloody mucus into the mouth. Sensation as of a ball rising in the esophagus.

Wyethia.—Throat feels swollen; epiglottis dry, and has a burning sensation; constant desire to swallow saliva to relieve the dryness, yet affords no comfort. Prickling dry sensation in posterior nares. Dryness of the fauces; constant desire to clear the throat by hemming.

Ailanthus.—Tongue, dry, parched, cracked.

Antimonium Crud.—Tongue coated thick white. (Bry.)

Antimonium Tart.—Tongue coated with a thick, white, pasty coat; red in streaks, very red, dry in the middle.

Argentum Nitr.—Tip of the tongue red and painful; Papillæ erect, prominent.

Arsenicum Alb.—Tongue dry and brown.

Arum Triph.—Root of tongue and palate feel raw. Tongue swollen, red, sore with raised and irritable looking papillæ.

Baptisia.—Tongue coated yellow along the center, with flat, bitter taste in the mouth. Tongue feels dry on rubbing it against the roof of the mouth; smarts and feels as if burned. Tongue coated white, with red papillæ protuberant, followed by yellow, brown coating in the center, the edges red and shining.—*Hom. Eye, Ear and T. Journal.*

PHOSPHORUS. Mr. B., æt 55. Never was a strong boy. Father healthy, died æt. 70; mother died æt. 49, from overwork. Five healthy sisters; but one died from acute effects of catching cold. In 1856 had typhoid, treated allopathically. In 1865 had rheumatic fever, from which he recovered well under homœopathy. In 1884 had gastric fever, treated by a local homœopathic physician. He first consulted me on May 28th, 1884, for dyspepsia, relieved by *Carbo veg.* cm. (F. C.); but he made no mention then of the "thirty years' war" which the sequelæ of typhoid had waged in his sys-

tem. He now informed me that ever since the typhoid, if he lies on his left side he has desire for stool; and if he persists, a loose stool is the result. For some years also, at times, the stools have been thin in diameter, and very long. A few weeks ago he caught cold during cold weather in Boston, U. S. A. He has now a dry, hacking cough on entering the cold air; the cough shakes him. No sputa now, but at first yellow sweet sputa. During voyage to England, had much sweat on head; and cough was worse lying on back, better lying on right side. Feels weak.

Diagnosis of Remedy.—Diarrhoea from lying on left side, *Arnica Phosph.* (On right side *Phos-ac.*; on either side, *Bryon.*; on waking at 2 A. M., when lying on abdomen, *Supr-ac.*)

Stools long, narrow. *Alum, Borax, Caust., Cimex, Graph., Hyos., Merc., Mur-ac., Natr-c., Phosph., Puls., Sep., Staph.*

Like dogs' stool. *Cimex, Phosph., Staph.*

Cough better lying on right side. *Ant-t., Arsen., Phosph., Thuja.* (*Phosph.* has also aggravation of cough from lying on right side or back.)

This comparison clearly pointed to *Phosphorus*, which has also the remaining cough symptoms, and the sweat on head and weakness (See 2357, 2372, 3228-96, 3902.) I dissolved a few globules of *Phosph. cm.* (F. C.) in water, and prescribed a spoonful of the solution every four hours for eight days.

April 29th.—Has had no medicine for about a week. Much better; cough almost gone; much stronger; can now lie, and even sleep, on left side, without exciting the stool symptom. *No medicine.*

1886, Feb. 11th. The abnormal desire for stool returned for the first time, some weeks ago, and has persisted. Has also rather sharp frontal headache, commencing on waking; with the headache, mouth fills with saliva.

Diagnosis of the Remedy.—Flow of saliva with headache. *Amm-c., Ant-cr., Cinnab., Epiphegus* (viscid), *Hippomanes, Ignat., Iodium, Kali bichr., Magn-c.* (bloody), *Opium, Phosph.* (291, 298), *Sepia, Verat.*

The same remedy being again indicated, I prescribed *Phosph. cm.* (F. C.) in water as before, a spoonful twice daily for eight days.

March 30th.—Reports that the headache ceased soon after leaving my house. The stool symptom also ceased before he had finished the medicine; and when I next saw him, on May 8th, it had not returned.

From this time he remained fairly well in health, having no occasion for my advice, till March 21st, 1889, when he consulted me for a general breakdown from overwork, business worries, and heavy financial losses. The desire for stool when lying on the left side had lately returned at times, but never so badly as formerly. Also the stools were again thin in diameter, and very long; soft, but difficult to pass, had to press and squeeze abdomen and loins to assist the evacuation. He also had other, but non-characteristic, symptoms of dyspepsia. I prescribed one dose of *Phosph. mm.* (Fincké). This speedily removed the unnatural urging to stool, and the evacuations became more consistent, better formed, and less difficult to pass; the other dyspeptic symptoms also improved. Whether *Phosph.* would have completely cured, it is difficult to say, as a change of symptoms demanded *Nux vomica*; and later he required *Arsenicum* for an attack of the influenza epidemic.—By E. W. Berridge, M. D., in *Monthly Homœopathic Review*, Feb. 1, 1907.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

THE INFINITESIMAL DOSES OF OUR OPPONENTS.—Old school therapeutics has amazed us by its recent employment of a form of atomic dissociation. Colloidal metals, says Lamatte, present the best type of substances to break down the ordinary laws of chemistry. These colloidal metals are obtained by throwing out sparks between two rods immersed in distilled water, when the liquid becomes colored and contains the metal. To this unknown product, which in the small dose of 1-300 of a milligramme per litre exerts an energetic action, the name of colloidal metal has been given. Filtering cannot separate the atoms, which remain invisible to the microscope.

We should regard the metallic colloid as a form of dissociation of the atoms of the metal. The colloidal metals possess properties which have no analogy with those of the metals in solution. They seem to come near to the oxydases. In certain infections, at the dose of 5 to 10 cc., they produce remarkable results by increasing the organic exchanges, with over-production of urea and uric acid. No chemical reaction can explain their properties, and the manner in which they are prepared justifies us in saying that they contain the dissociated metallic atom. They are not radio-active, that does not invalidate our hypothesis, for radio-activity is only produced during the separation of the atom. The protoplasm would be only a mixture of colloidal substances.

The diastases, the toxins, the enzymes, have reactions next to those of the colloidal metals. They act in extremely small, imponderable doses: 2 drops of tetanic toxin, containing 99% of water and 1% of active matter, can kill a horse; 1 gramme of this substance, says Gantier, could kill 75,000 men. Those poisons have their poisons: corrosive sublimate, prussic acid, nitrate of silver, have no action upon the cobra-venom, while traces of an alkaline salt will prevent it from acting. Toxins and soluble ferments, are ferments capable of producing effects outside of the organism that created them. If deprived of the infinitesimal quantities of mineral matter, which they contain under a form next to the colloidal state, these bodies become inactive.

All these reactions are produced in the presence of water, magic combination without which no organic manifestation can result. The study of the metallic ferments may perhaps give us the interpretation of those

hydrations, dissociations, analyses or syntheses, which have as a result the organization of our tissues and the manifestations of our vegetative life.

Pepsin, pancreatin, trypsin, oxydases and reductases, which decompose our food and liberate their potential energy, are biochemical colloids, whose useful effects we can verify, but whose intimate nature we completely ignored.

Among the increasing literature on the employment of colloidal metals to combat infection (puerperal fever, peritonitis, pyæmia, acute gonorrhœa, &c.,) we find strong testimony as to the therapeutic value of this unknown product. The most interesting assertions come from Hocheisen, of Berlin, (Medizinische Klinik) who claims that while colloid silver is not a specific, is an invaluable aid in suitable cases. "It diminishes the temperature, stops the chills, effects subjective and objective improvement, causes beneficial sweating, stimulates the appetite and produces sleep. Very often it diminishes the pulse rate and increases and regulates the blood pressure. Its action is not invariable, and in some cases a temporary and innocuous temperature rise and chills follow its use." Its special domain is pyæmia, where it reduces the mortality to a minimum, "but under the name of collargolum it has been employed intravenously (3 to 5 cc. of a 2% solution) in endocarditis, peritonitis, septic pneumonia, and puerperal fevers, in conjunction with other procedures. Such an enthusiastic reception, for a new therapeutic agent, is seldom seen, and we hear already of irrigating solutions (1:1000—1:10,000) urethral injections, enemas, and silverized catgut, as valuable auxiliary means."

Bamberger has established that a marked leucocytosis occurs a few hours after the administration of collargolum, and this is certainly of aid to the tissues in combating the infection. "The white cells themselves take up the metallic silver. It may be, as Fehling believes, that the metal has a catalytic action. Rodsewics claims for it a direct bactericidal effect, without any change in the composition of the blood and maintains that it causes a phagocytic reaction on the part of the organism. Crede's latest opinion, based on the work of Schade, is that the effect of the colloidal silver depends upon three facts: 1, its immediate bactericide action; 2, its electro-catalytic effect, which increases the oxidation processes, and 3, the rise in the number of the large leucocytes that it occasions." Gompel and Henry obtained colloidal silver from the fluids of the organism by the spectrographic method, which allows to detect doses of 1:100,000; 3 or 4 drops of blood, or a fluid, being sufficient for the experiment. Colloidal silver, say the above authorities, when injected into a vein, remained in the blood 24 hours after its introduction, and after being taken by the mouth, it is absorbed by the intestinal wall and found again in the liver, spleen, kidneys and heart.

Although most all that has been done is experimental, the fact remains that in colloidal metals we have powerful agents to aid phagocytosis. Le Dantec, in his "Introduction to General Pathology," has grouped, in a general way, all the phenomena resulting from the introduction into a healthy organism of any foreign matter whatever. This apparently strange phenomena can be reduced to a small number of very concise formulæ, borrowed from the prolific language of organic equilibrium, which we must admit, have in the last few years rebuilt the physico-chemical sciences. Charrin,

in his excellent work on "Les Defenses Naturelles de l'Organism," asserts that phago-cytosis exerts its influence with equal force on foreign bodies or chemical substances, as upon microbes. The globules (atoms), says the same authority, show themselves phagocytic, they seize the infinitesimals, dust, forcing matters and soluble compounds. According to Van t' Hoff, substances held in solution act like gases, and this observer has shown that the laws of Boyle-Mariotte, Gay-Lussac, and Avogadro apply to these substances as well as they do to gases. The dissociated molecules behave exactly like the molecules of a gas, which exert a pressure upon the wall of the containing vessel in their endeavor to diffuse themselves through the greatest possible space. Gildersleeve has concluded that dilute solutions of copper have a marked destructive action on many bacteria. Colloidal copper, he says, will quickly destroy certain bacteria, and Stewart asserts that the quantity of colloidal copper given off from one-liter copper vessel in three hours was one part to four million. This amount, he claims, killed off the added typhoid organism in from one and three-fourths to two and one-half hours, and clinical experience has shown that this amount of colloidal copper is harmless when taken into the human system.

Such are the amazing effects of imponderable doses of colloidal metals. "It is," says Lamatte, "to the liberation of atomic energy that we owe the benefits of solar radiations, without which life would disappear from our globe. It is the same power which in the bowels of the earth decomposes rocks and give our patients the mineral waters, 'true living serums,' as Professor Landouzy has called them. But this atomic force can also spread ruin and desolation by shaking the frail crusts of the earth and pour out the lava of volcanoes over prosperous cities and fertile regions. The scientific conception which invites us to consider as animated all that surround us, the iron as the plant, the rock as the star, is not lacking either in grandeur or poetry.

Now let our materialists digest the above and be prepared to hear in the future flattering and stupendous things about atomic dissociation and the effects of colloidal metals upon the living cells.

To the distinguished botanist, Carl von Nagali, we owe the discovery of the unknown force of bacterial destruction which he called oligodynamia (*Ueber Oligodynamische Erscheinungen in Lebenden Zellen*, Zurich, 1891). He found that many metallic substances, hitherto reputed insoluble in water, such as silver, gold, copper, iron, mercury, lead and zinc, could render the water toxic by the mere presence there. Quite interesting are also the researches of Prof. Oswald, of the University of Leipzig, on the crystallization of oversaturated substances, that is over-chilled by the addition of traces of the same substances or rather of an isomorphous substance. These experiments proved that in a solution of that kind, crystallization takes place immediately after the last trace of the substance contained in the solution was added. They were carried on with salol, thymol, borax, &c., previously triturated for this purpose, by the Central Homœopathic Pharmacy, of Leipzig, and the results clearly established the fact that the phenomena of crystallization were exhibited even with the ninth decimal attenuation, which is about a millionth of a grain.—(*Studien über die Bildung und Umwandlung fester Körper.*)

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WHY DO WE EAT? WHAT SHOULD WE EAT?

BY

JOHN P. SUTHERLAND, M. D., BOSTON, MASS.

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A VERY great many years ago, when I was a boy, and played at conundrums, we used to ask each other, "Why is a bad clergyman like a sign-post?"—to which the answer was, "Because he points the way he never treads." As I rise tonight, to speak to you on my chosen subject, "Why Do We Eat?" and "What Should We Eat?" I feel very much like the bad clergyman and the sign-post of our boyish conundrum; I, on this occasion at least, am so conspicuously pointing the way I am not treading. For I shall presently tell you with *ex cathedra* solemnity, that we should eat for necessary nourishment, and not for gratification of the palate by agreeable flavors; whereas the agreeable flavors of the food you have so bountifully set before me have tempted me far past any need of amplest nourishment. I shall preach to you of the severely hygienic composition of the dishes of which alone the conscientious scientist will partake; while I very much fear that several of the dishes I have so visibly and unblushingly enjoyed do not stand catalogued in any hygienic cook-book. I can only plead the precedent of our remote common ancestor, for unprincipled partaking of agreeable but forbidden fruit.

and remind you, to borrow yet another quotation from boyhood days, that

In Adam's fall
We sinned all!

I am offering you tonight two dietetic conundrums. Why do we eat? What should we eat? I am not promising you anything very final and comprehensive in the way of answer. I hope to offer a hint or two as to the fields in which answers are to be sought.

Since reading J. Milner Fothergill's little book, "A Manual of Dietetics," some twenty years ago, my attention has more and more definitely been turned in the direction of the etiological potency of diet, and I have pursued the subject of diet from the etiological standpoint more or less fitfully ever since. Hahnemann, the founder of homœopathy, spent, as you know, many years in the study of chronic disease, and formulated a theory, which has measurably stood the test of time, that the great majority of chronic diseases are due to one of three miasms. Whether or not he was fully justified in his conclusions I do not propose to discuss; but I confess it does not seem to me that Hahnemann, or any of the other students of chronic diseases, has attributed to diet anything like its very probable etiological possibilities. We hear a great deal of conditions that are said to be due to climate and to atmospheric influences. The profession and the laity have long considered climatic influence a sufficient explanation of the cause of many diseases. Personally I am inclined to think that climate is of very much less universal significance as the etiological factor of disease than is improper diet. I believe climatic influence has been too much dwelt upon etiologically, and dietetic influences have been far too generally ignored.

Bacteriological science has quite definitely determined that the majority of acute diseases are due to the activities of micro-organisms, and that most of the acute diseases are self-limited in nature; that while many of them are contagious and infectious, and may rage as widespread epidemics, they will with good nursing, with simple dietetic and hygienic treatment barring complications and constitutional difficulties, terminate in good recovery. But it is quite different with the hosts of chronic and unclassifiable pathological conditions with which the physician has to deal. The tendency of a large

number of these chronic troubles is not to dissolution. They are not self-limited; and spontaneous recovery from them is a rare occurrence. It is this class of cases that tries the patience, the skill and the ability of the physician to the utmost, and it is just this class of cases that must be cured by artificial means, since Nature, unaided, seems unable to bring about a recovery. Such conditions are not due to micro-organisms. They will, in many cases, be found to be amenable neither to surgical treatment nor to medicine. The administration of drugs singly or in combination, in high or low potency, may be quite ineffective to bring about the desired cure. All the resources of medical art are usually needed. And not the least helpful of these resources will usually be a careful inquiry into and a proper regulation of diet. If we consider, solely and exclusively, the benefit we may confer on our chronic patients, by answering to them, and for them, the questions, "Why do we eat?" "What should we eat?" we shall find the time spent in seeking answers to these questions, to have been profitably spent.

Again, one of the noblest uses of the medical profession is the prevention of disease. And it is certainly to the great credit of the profession that within recent years much has been accomplished in the way of bringing forward measures that will prevent the occurrence of many infectious diseases. The terrible scourge of smallpox was one of the first enemies of mankind to succumb to preventive measures. Pulmonary tuberculosis is likely to become of much less frequent occurrence on account of measures which are now being taken to prevent its spread. It is claimed that 14,000 deaths occur annually in the State of New York from this one disease, a mortality that is almost if not quite preventable. Malaria, yellow fever, and to an extent, diphtheria, are becoming more and more amenable to preventive measures. To make such measures effective it is necessary, first, that the profession shall be properly educated; secondly, that the laity shall, by educated physicians, be taught all that is knowable concerning such matters; and finally, that there shall be earnest and cordial co-operation between the profession and the laity, on the basis of such knowledge. It is through such an educative campaign that tuberculosis is being more and more controlled, that smallpox is becoming less and less prevalent, and that epidemics of yellow fever are becoming more and more manageable. The glories

of preventive medicine, however, seem to be connected with such infectious and contagious diseases as the above mentioned; and this is due primarily to the fact that the *causes* of these disorders have been clearly and definitely recognized. May we not assume that if the causes of any number or variety of chronic conditions could be as clearly and definitely recognized as the causes of these acute maladies have been, something as satisfactory in the way of preventive measures might result as in the case of acute diseases?

It seems a very curious fact that mankind should be subject to so many disorders. Of all the animals it is claimed, at least by himself, that man is the most intelligent. His knowledge is far-reaching; his mental ability far transcends that of any of the animals. It is within his power to control his environment. It is possible for him to procure fresh air, to modify his clothing, to protect the body against intense cold or excessive heat. It is possible for him to so order his life, as to make use of or avoid sunshine; to make use of bathing and other measures for cleanliness. Not least to be considered, his food is a matter of his own selection. He certainly is not limited in the variety of foods at his disposal, as are the other animals. It would seem as if with the aid of so much knowledge, intelligence and power he should suffer far less from disease conditions than the animals. Yet, as a matter of fact, he boasts far more diseases and more illnesses than all the other animals combined. I am inclined to think the explanation of this not very creditable condition of things lies in the fact that in spite of man's knowledge he does not know enough. And that where his knowledge is sufficient, he does not allow this knowledge to guide his actions. With almost infinite freedom of choice there seems woefully lacking the intelligence and the will to choose wisely; even in the one particular of knowing and willing when and what to wisely eat.

Why do we eat? The answers to this question are imaginably almost as numerous as the imaginable divisions of those to whom the question might be put. The normal small boy would reply that we eat because—and whenever!—a kind Providence brings eatables our way. The careful housewife would reply that we eat because the servants object to having the table kept waiting. The gourmet would reply that we eat because eating, under wise precautions, offers one of the keenest pleasures life affords; and one that can be enjoyed prac-

tically to life's end. The physician of slightly belated theories would answer that three meals a day, eaten at regular hours, promote digestion and health. The broad-minded up-to-date scientist would give us an answer differing very widely from any of these. He would, and in the persons of the best modern dietetic authorities, does tell us, that we eat because protoplasm must consume and assimilate nourishment in order to form new protoplasm and to repair that waste of protoplasm which is implied in putting forth any form of energy.

I hope to show you that in accepting the latter statement we are answering not only one, but both questions which head my paper. It tells us why we eat; simply that by consumption and assimilation of food we may repair the waste of our system; keep its machinery well oiled and adequately supplied with motive power. And by implication, it answers the second question. If our reason for eating is to manufacture protoplasm and to repair waste, then surely reason dictates that we shall eat only the food that can most promptly, economically, lastingly and wholesomely repair that waste, or be converted into protoplasm.

The answer to "Why do we eat?" also implies a very pregnant suggestion as to when we should eat, and how much we should eat. It suggests that we should eat oftenest when most the tissues need repair, and that we should proportion our food to the amount of repair needed.

An engine is fed according to the amount of work expected of it at any given time.

A horse is fed extra oats if extra work is expected of him; while he is fed on grass or put to pasture if he is not expected to do work for the time being.

There seems no reason why man should not treat his own mechanism as intelligently as those he creates of iron and steel; certainly the latter are renewable if destroyed, and his own do not possess that pleasing attribute. There is no reason why he should not deal with his own animal needs as wisely as with those of the other animals committed to his ownership.

It is a hopeful sign that we are losing the tradition that three "square" meals a day are necessary to all men at all times. The no-breakfast theory has helped much to emancipate us from the three-meal tradition; so, on the other side of things, has the forced-feeding theory. We are slowly learning that

we are meant to eat for use; not for tradition nor for amusement.

In trying to answer the practical question, "What should we eat?" we find ourselves face to face with a very difficult problem. It would seem to be one of the easiest questions in the world to answer, but if we think of it carefully, it is in reality one of the most difficult. In what direction shall we look for the answer? From what source shall we expect to get light? Shall we accept as our standards the diet lists furnished by manufacturers of digestive ferments or of special foods? Kind heaven forbid! Shall we accept the menus furnished by physical culture laboratories, diet kitchens, cooking schools, etc.? We shall do so at the peril of our temporal, possibly our eternal welfare. Shall we be guided by the directions furnished by some of the older writers? By Pavy, Liebig and others? Or shall we accept the more modern dictum of Chittenden or of the well-known Fletcher? Here we are "getting warm," as the children say; but we have not yet arrived. If we look at the dietaries of the various peoples of the earth for the answer to our question, we shall find ourselves helplessly confused. For the dietetic habits of various nations and peoples are as varied as their other customs. We need but quote the rice and fish of the Japanese; the rice of the Chinese; the ascetic vegetarianism of the Hindoo; the fruits of the South Sea Islanders; the culinary ancestor-worship of the Patagonians; the black bread of the Italians; the oatmeal of the Scotch; the potato of the Irish; the beef of the English; the baked beans and brown bread and codfish of the Bostonian; the hog and hominy of the South; the venison of the American Indian; the blubber of the Eskimo. Little suggestion as to the most hygienic diet, for humanity would seem to be obtainable from comparative methods. We certainly cannot be guided by those who advocate uncooked food, by those who advocate exclusively a meat diet, or by bigoted partisans of vegetarianism. We cannot glean any broadly general suggestions from the dietetic habits of the wealthy and luxurious, or, on the other hand, from those whose circumstances permit only the meagerest fare. We certainly cannot find an answer to our question in what is called natural instincts, because our instincts are no more reliable in this respect than in any other, and are as likely to lead us in the wrong direction as the right. If we could properly interpret Nature, we might

find something nearer an answer, for Nature very evidently prepared for man's existence and well-being, even before man himself was far developed.

It seems certain that the only permanent and worthy answer to our question can come from the physiological laboratory, where Nature is respectfully and intelligently questioned; in that properly conducted experiments are actually performed. The brilliant work done by Atwater of Wesleyan, and Chittenden and Fisher, of Yale, is destined to furnish most important information as to the true values of various foods. And as mankind advances in intelligence and in ethical culture, it is certain he will eat more intelligently and we may say more ethically; another way of saying that he will eat with the primary intent of building up healthy and useful tissues—to building cleanly mansions in which for his higher self to dwell; and useful, trustworthy vehicles through which for his higher self to find expression. To do this he must obtain all possible knowledge about food values, and he must utilize this knowledge in his personal dietary, and in his teaching and direction of others. This does not mean that man is to make of eating merely an uninteresting, uncongenial performance of a duty. There is no imaginable reason why wholesome food should be unpalatable. And as for enjoyment from eating, one has only to compare the sated gourmand waving away with a nausea of distaste the choicest dishes of the most famous chefs, with the schoolboy, new from the foot-ball field, joyously munching his bread and butter and apples—one has only to compare these two to realize that enjoyment in eating is not largely a matter of the flavor of things eaten. When we eat wisely, we shall not lack pleasure in eating. Pleasure in the exercise of necessary functions is "Nature's shilling" to bribe us to that exercise. And Nature never shirks her end of a bargain. Let us agree that Nature's answer to *WHAT SHALL WE EAT?* is that we should eat what we most need to secure maintenance of healthy tissue. What this is, life and our laboratories are from day to day instructing us. To begin with, Nature has furnished man with a good many hints as to what he should eat, by supplying him abundantly with certain food materials; that is, material which is convertible into healthy and active protoplasm. Grains are to be had in great variety. Vegetables, fruits and nuts are also freely provided. So far as Nature is concerned, however, the only comprehensively perfect food that

she provides, for mammals at least, is milk; the quality of the milk varying more or less with the species. The constituents of this form of nutriment are too well known to require dwelling on in detail. But it may be well to remind ourselves that this most valuable food consists of fat, sugar, proteid and chemical salts in solution or suspension in a very large proportion of water. Since milk can by itself alone sustain life for such prolonged periods, alike in infancy and in maturer years, in sickness and in health, it is safe to infer that if we supply to ourselves in whatever forms of food we choose, fat, sugar, proteids, chemical salts and water, we shall be well and properly nourished, provided that we neglect none of these in our dietary, and that we justly regulate the proportion of each.

I am not prepared to suggest to you a fixed dietary. My purpose is rather to urge on your attention the importance of intelligent dietetic study; the etiological and therapeutic importance of dietetics as a whole. But I shall trespass on your patience with a few hints and suggestions, some of which may strike you as rather heretical, but all of which I have made proof of, in many years of personal and professional experience.

First let me say that the popular idea that meat is the one and important essential article of man's diet does not in any way meet with my approval. It is very true that one of the distinguishing characteristics of all forms of animal life is the necessity of some proteid food. This is one of the differential points between animal and vegetable life. It is also true that meat is a proteid food, and that it yields its nitrogenous elements very readily. It is oftentimes said to be more digestible than vegetables, and it is also said to be transformed vegetable matter.

That it is easily digested there can be no doubt. But a great and insuperable objection in my mind to the free use of meat is the fact that it has lived, and as a result of its activities in that life, it is more or less loaded with waste matter. Some of these physiological wastes are not in the least injurious. Many of them, however, are of known toxic potencies. And it is the ingestion and absorption of these toxic substances that in my mind make meat a distinctly objectionable article of food. We often hear a careful housewife speak of removing all the fat from a bowl of soup or broth; we often hear people say that they have used the expressed juice of so much meat

a day, thinking that they have removed injurious matter, or secured a more wholesome food by such procedure. As a matter of fact, the fat which has been so carefully removed is an excellent heat producer, and may be needed by the invalid; and the soup which has been so carefully strained, and the juice which has been so carefully expressed, skilfully preserve all the dangerous waste matters found in the meat itself. Any one who wishes to take the necessary time can easily demonstrate to himself that meat juice contains the waste elements and poisonous substances found in urine; not an appetizing truth to ponder! The delicate calves' liver so highly prized by epicures; the toothsome kidney stew considered so palatable, are both of them, from a physiological standpoint, what the brutal candor of a surgeon would truthfully call, "dirty." For they contain even a larger proportion of physiological waste than plain or ordinary meat. The natural, and I believe the just conclusion from these facts is that the smaller part meat plays in man's diet, the sounder and cleaner tissue will be built up. Always provided that the place of the proteid now furnished by his consumption of meat be supplied by the free use of eggs, nuts, cheese and other articles of diet equally rich in this element, in clean and easily assimilable form. Proteid and meat are far from synonymous terms. That man is necessarily a carnivorous animal is rapidly becoming an exploded superstition.

If we look at the animal kingdom, we shall find those animals that are exclusively meat-eaters are not from any standpoint the most desirable or useful members of that kingdom. Carnivorous animals are notably savage, brutal, undocile and unserviceable to mankind. It is true one of man's faithfulest companions, the dog, is of carnivorous extraction; it is also, and most suggestively true that the less carnivorous he becomes while in association with man, the safer and the more companionable he becomes. The modern Anglo-Saxon, at least, feels lost without his meat three times a day, and accepts unquestioningly the tradition that without meat there is no appreciable strength. He does not stop to realize that in so far as physical strength is concerned, the bulk of the world's work has been done by those into whose dietaries meat scarcely ever enters. The domestic animals whose strength has been utilized by mankind, and who are accepted for companionship and noted for trustworthiness, gentleness and intelligence, ob-

tain their nitrogen not from meats, but from grains and grasses. Neither do they realize that a not inconsiderable part of the wisdom of the world, including all its religions, have come to us from the ascetic, vegetarian East. An argument long held unanswerable has been that meat and meat alone could nourish fighting men. In point of fact, a very considerable amount of very convincing fighting has been done by the potato-bred Irishman and the oatmeal-bred Scotchman. And it is noticeable that since the late unpleasantness between Russia and Japan, the advocates of a flesh diet as a winner of victories have done far less talking and more thinking. Add to these considerations the savory revelations incident to the Beef Trust investigations; add, also, the enormous economic gain, could the poorer classes be convinced by precept and example, that health could be preserved and the palate satisfied without the relatively enormous cost of a meat diet. Finally, consider how, in the opinion of high authorities, it is assumed that the large consumption of nitrogenous food very frequently leads up to the rheumatic diathesis, or troubles of the rheumatoid variety. We need not discuss the relationship of urea, uric acid, etc., to the rheumatic difficulties; but it is easily demonstrable that in diabetics who are living largely or wholly upon a nitrogenous diet, the elimination of uric acid and urates becomes excessive, and very promptly indeed, difficulties of a so-called rheumatic nature develop. The direct etiological influence of a meat diet may not always be so easy to prove, but I am strongly inclined to think that many cases of flatulent dyspepsia, of palpitation, of headache, of neurasthenia, and rheumatic troubles are due to this dietetic habit alone, and are frequently enormously benefited by its cessation. Surely these considerations should lead us to experiment with other forms of proteid than flesh food.

There are certain popular views connected with fats with which I have never been able to sympathize. That they are greasy must be admitted; but that they are unwholesome I do not believe. The great care with which fats have been excluded from the diet of children during the past two or three generations has been, to my mind, an incalculable misfortune, and has had very much to do with the establishment of a common neurotic temperament so characteristic of the present age. The abhorrence of many children to anything in the nature of fat would be amusing if it were not so disastrous.

I have known parents to hire their children for so much a week not to eat butter. We all know people who with scrupulous care cut all the fat from the meat which is served to them. We often hear people deprecating the use of fats on the ground that fats are objectionable foods; but I have never yet heard a good reason given for this superstitious distaste. Fats are the foods above all others demanded by the nervous system. Fats are the best fuel food we have, and there is every good reason, indeed, a most demonstrable reason why, in the cooler weather particularly, they should be used much more generously than is usually the case. It is necessary to keep the body temperature up to about 98° F. and a liberal supply of fat food renders this an easy task.

I have never been able to convince myself that the liberal ingestion of fat food disturbed the functions of the liver in the least. It is not a difficult task to prove that after being saponified and emulsified, fats are absorbed through the intestinal villi, carried to the lacteals, whence they make their way to the receptaculum chyli, and so on into the blood stream. The result of their combustion is heat, with carbon dioxide and water, which are easily eliminated. So that at no time in their physiological history do fats tax the liver. The carbo-hydrates, on the other hand, in the process of digestion, pass through the portal circulation to the liver, and in all probability much of the biliousness that is complained of is due more to the carbo-hydrates, especially sugars, than to fats. It has been my custom for many years past to use very freely, in neurasthenic cases particularly, fat food, especially milk, cream, butter, bacon, glycerine and cod liver oil. Olive oil and petroleum oils are, I think, in no way substitutes for cod liver oil, except possibly as to palatability. You will note that exclusive of cod liver oil—and that, by the way, will lose its terrors, if followed by a pungent and inexpensive peppermint—I have mentioned several forms in which fats can minister to the palate, as well as to the upbuilding of the system in general. Few will object to a liberal use of cream. Butter-scotch, made with pure butter is a valuable form of fat, with which to lure infancy to the paths of health.

I have spoken of the elements of proteid and of fat, as factors in our dietary. Now let us for a moment discuss the factor of sugar. Ours is verily a land flowing with milk and honey. We are justly considered a prosperous nation. Our

prosperity shows itself in the luxuries which we find easily obtainable. Among the edible luxuries, sweets occupy a position in the front rank. The figures of 1906 are not obtainable, but the reports for 1905 show that there was imported into this country in that year nearly double the amount of sugar that was imported in 1898; \$78,000,000 worth being the value of sugar imported in 1898, and \$151,000,000 the value of that imported in 1905. That is, the quantity was less than 3,250,000,000 pounds in 1898 against 5,000,000,000 pounds in 1905. This does not take into account, of course, the amount of sugar manufactured in this country, which is very considerable. Reckoning only with the imported sugar, and taking our population as being 80,000,000, it is fair to claim that the per capita amount used in 1905 was over sixty pounds. Assuming that the total amount of maple, cane and beet sugar manufactured in the country only equalled the amount imported, and we have a per capita consumption of about 125 pounds per annum. Considering the fact that quite a percentage of the population consists of infants who are not eating sugar, and considering the large number of people too poor to buy it in any considerable quantity, it is probably quite within bounds to claim that those who eat sugar at all freely use from 150 to 200 pounds a year. Is this large consumption of sugar justifiable on physiological grounds? Is manufactured sugar a wholesome article of diet? I think both these questions may be answered with an emphatic negative. It seems to me the white sugar now universally used is the most artificial form of food stuff made use of at all. Nature has given us some excessively sweet articles of food, among which honey and thoroughly ripe persimmons may be mentioned. But white sugar must be looked upon as one of the products of modern civilization, and therefore to be strictly questioned, before we give it right of way to our tables. We readily admit that Nature has indicated very positively indeed the utilization and necessity of sugar as a food. In human milk, for instance, we get about 7 per cent. of sugar, although it is not a very sweet product. In cow's milk we get on an average 4 3-10 per cent. It should be noted, however, that in these typical articles of food there is no starch. And that during digestion starchy foods are converted into sugar, thus greatly minimizing the necessity for sugar with those who use starchy foods. Nature has also put into our fruits and berries, into certain vegetables

and grains a percentage of sugar, thus indicating that grape sugar and cane sugar or milk sugar should form a definite proportion of our diet. If in this case, as in so many others, we could adhere closely to Nature's indications and follow her guidance, it would doubtless be to the good of mankind. But man has taken a juice containing only 2 to 5 per cent. of sugar, and has crystallized this sugar by evaporation. The product, though sweet enough to suit almost any palate, is considered unsightly, and so it has to go through a very complicated chemical process for bleaching and recrystallization, a process which probably intensifies its injurious properties. The final product is, as we all know, generously partaken of in the form of confectionery by other and nominally wiser beings than the matinee girl; and it is also added freely to foods which Nature has already sweetened to her own ideas of what is right and proper for mankind.

The physiological chemistry of starch and sugar absorption and digestion is too abstruse and complicated for us to enter into tonight; but we may summarize by saying that Nature has indicated sugar to be a necessity in our diet, but that the modern, civilized, well-to-do individual would do well to study and to be guided by the proportion of sugar that Nature employs. Otherwise, in this direction, even more surely than in that of any other dietetic error, except meat-eating, he pays for a flattered palate by disorganization of much more vital parts of his fleshly tabernacle.

We turn now to that very important division of dietetics, which has to do with starchy foods and with cereals. Among our many characterizations we have been called a "breakfast food nation." Many people in our own midst as well as among our neighbors, are wont to speak rather flippantly of cereals and breakfast foods. We are all familiar with the old passage of words between the Englishman and the Scotchman concerning the dietetic value of oats. "Oats," said the Englishman, "in England are food for horses; in Scotland, for men!" "Ah-weel," said the Scotchman, "an' whaur find ye such horses—or such men?"

Oats are indeed food for horses. But they certainly have helped to make men worth reckoning with—or so it is claimed by the nation to whom it has pleased God to give a verra guid conceit o' themselves.

It has long seemed to me reasonable to look upon grains as

among the cleanest and most wholesome of foods. They are relatively none of them perishable, and they are easily transported. There is something worth pondering upon in the somewhat terrible vitality of a food stuff which can quicken and bring forth "fruit after its kind" after biding for two thousand years in the cerements of a mummy. Grains are not in need of "cold storage" or other dangerous methods of preservation. They are the product of a wise and beneficent Nature, whose experience covers a very much longer period of time than man's, and who evidently evolved in these grains a very high type of food. It is true that in common with the vegetables, they contain a good deal of indigestible cellulose; but they also contain a large proportion of starch, gluten and more or less sugar. Some of them offer quite a percentage of fat, and an appreciable proportion of the chemical salts necessary to nourish living bodies. Containing so much that is necessary to maintain a vigorous bodily condition and promote sound health, why should the use of such foods be limited to breakfast?

Let me pause to remark that there is something rather droll, rather puerile, and not a little irritating in that slavery to dietetic conventions which dictates not only that we shall eat three times daily, "without the natural cause," as the song says, but that we shall eat only certain sorts of things at each of these three sacrificial occasions; dinner-dishes being exactly the same in make-up, for instance, whether dinner be eaten at noontime or at night.

Alleged rational beings would do well to rebel against this arbitrary folly, and establish a regime under which food is to be partaken of when it is needed, and in no larger quantities than it is needed, and of such constituents as are needed. The cook has a word to say, you urge? The cook be—spared a great deal of unnecessary labor by reasonable simplification of our diet!

It is in connection with one of the most useful of the grains, that man has committed one of his greatest follies. I do not know who invented white flour. But I suspect it to have been that unnameable person who invented corsets and bridge whist. For it seems to me the invention was no inspiration born of knowledge or beneficence. Nature, after countless years of experimenting, produced a wonderful and salutary combination of elements known as wheat. From this by an ingenious

and mischievous series of processes man has abstracted certain constituents, chiefly starchy principles, and has produced a white and pretty and comparatively worthless substance that can be made into various ornamental, palate-tempting and dyspepsia-inciting combinations. Has man really improved on Nature in this instance? I am inclined to think not. Man rarely does. It is one of the ironic jests to be noted in this connection, that having thus largely devitalized his wheat, in order to get a sufficient diet man has to add to his bread, butter, meats and chemical salts. And even so, he does not get the full ration Nature has originally provided in her wheat. To parallel the figure man must cut in the eye of Nature in so doing, one must recall the infant who plucks a feather from one molasses-smeared finger to stick it on another.

It is claimed that man's intestinal tract is not adapted to the digestion of vegetables and grains until these have been predigested by cooking. This, however, cannot be urged as a valid reason for not using them. Why should we not cook our grains and our vegetables? Animals, that is the ruminant animals, allow vegetables and grains to remain in a pouch in which they are subjected to the action of heat and moisture, for a certain length of time, before they are passed on into those parts of the gastro-intestinal tract where what is ordinarily called digestion really occurs. I am not in favor of the modern numerous ready-to-eat foods that need only a minute's cooking, or the simple addition of water. Commercialism has found the preparation of grains a lucrative field to work in, and has filled the market with products, some of which are doubtless useful; but the great majority if not all of which are practically unnecessary. They are no improvement over Nature's own product, and are more expensive.

I am strongly inclined to think that the free use of the whole grain, properly prepared by cooking, would be one of the most effective agents toward overcoming the very common tendency to constipation and sluggishness of the bowels, with all their attendant evils, which may be looked upon as among the unhappy pathological characteristics of our nation. This would mean, economically, the saving of the millions of dollars a year now spent on laxative and cathartic medicines, and the saving of thousands of lives lost by too intimate and prolonged acquaintance with such medicines. It would interfere, of course, with the manufacture of ethically and unethically prepared

"cures" for constipation. It would interfere also somewhat with the sale of saline and other Spring waters miraculously discovered by Indians. But it would prove an unmixed blessing to an over-fed and under-nourished race.

Possibly what I have said will strike you as bearing chiefly on the condemnatory and negative side of things. If time permitted I could speak positively and favorably enough of many articles of food. Time does not permit me to outline in detail a menu for a week or even for a day. I can only suggest that you compound for yourselves and try, before you prescribe it, a diet list that includes in well-studied and palatable combinations, milk, cream, butter, eggs, cheese, nuts, possibly fish, and the entire list of grains, vegetables and fruits. I believe you would find only good to result from such experimentations, and good in such proportions as would fill you with gratified amazement. You say, perhaps, that from such a dietary your patients could not consume anything like the bulk of their present food. Probably not. That would be among its chiefest benefits. Believe me, they would consume all they need to maintain sound and lasting health; and that health would lend to the simplest diet a relish that is too often lacking to their present irrational and—I say it deliberately—unclean dietary. We should not waste time wrangling over objective detail, in any subject under discussion, if we went oftener to its underlying basic principles. One basic principle of Nature, in dealing with men, is "to bribe him," as Mrs. Steele pithily puts it, "with agreeable sensation, to the discharge of certain duties vital to his own well-being, and that of his race." The wise man enjoys those sensations only in conscious and direct association with the discharge of those duties. In the instance now under consideration, he eats what will best repair the waste of his protoplasm, and he thankfully accepts Nature's unfailing bribe of pleasure in eating. The unwise man eats to multiply, intensify and prolong sensation, to the detriment of the purpose of eating; that is, he disorganizes his protoplasm, instead of ministering to it. He and his fellows of other fields of physical duty and sensation learn, and not slowly, that Nature has other basic principles on which she deals with those who prostitute her uses and abuse her rewards.

THE HUMAN HANDICAP.

BY

O. S. RUNNELS, A. M., M. D., INDIANAPOLIS, IND.

(A paper read before the Indianapolis Literary Club, February 18, 1907.)

How much the mind is in bondage to the errors of the past it is not easy to estimate, but it is doubtful if there be any, however cultured, who are free from the bias of obsolete opinions.

It is now seventeen hundred years since Ptolemy evolved the theory that the earth is the centre of the firmament with all the stars as satellites, and three hundred years since Copernicus and others established the science of astronomy, but we are still reminded of the old error by many expressions in daily use.

I need but to mention the stress of mind occasioned by the geologists in their announcement that millions of years have been consumed in bringing the earth to its present physical condition; of the opposition made to Isaac Newton and the law of gravity; of the lethargy encountered by Harvey in teaching the circulation of the blood; of the invective and ostracism visited upon Hahnemann for his discovery of the law of drug action—the so-called Homœopathic law—and of the persecutions of Jenner because of vaccination. Due to the same mental inertia is the present world turbulence occasioned by the law of evolution, and all that that implies.

These are some of the impediments experienced by man in his passage from the stage of mental handicap to the unfettered race-course of intellectual freedom.

I desire to invite you, however, to the consideration of an encumbrance, antecedent to and greater than any that has oppressed the race, affecting the body instead of the mind, the physical rather than the psychical.

My theme is "The Appendix Vermiformis and Its Influence Upon the Welfare of Man."

Brushing aside the rubbish and misinformation extant in regard to this question, let us examine the problem.

The appendix is a part of human anatomy; why, then, can it be a matter of baleful import? Did not God create it? And did not He pronounce all that He had made "good"? Yes; but it is known that creation is *going on*; and that the Creation

Finished, if attainable, is a future event. It is now accepted that creation has been by *law* and not by *fiat*, by natural process through infinite time, rather than by out-of-hand method during a span of time so short as to be inconceivable. Things are here by a law of derivation; by a law of continuity; by a law of becoming.

While in the abstract this induction has been approved and there is no dissent worth mentioning, in the concrete, at the personal application of this truth, many are yet stumbling. They do not realize what evolution means to them personally.

"For five hundred years," says LeConte, "scientific thought, like a rising tide, tended toward evolution with an ever-increasing pressure, but was kept back by the one supposed fact of the supernatural origin of species. Darwin lifted the gate and the intruding tide flooded the whole domain of thought." Jean Louis Agassiz was the last man of knowledge to make a stand for the separate creation of an Adam and Eve for each species in the animal kingdom; but even he established the facts of geological succession, and advocated the principles of evolution after the species was once started. The law of evolution, then, is the latest and greatest induction of science and is as absolute as the law of gravity. The evidence, however, for both gravitation and evolution is incomplete. There are motions of heavenly bodies not accounted for by the law of gravity—for instance, the wandering comet—but no one calls in question the verity of the law. There are links wanting in the chain of testimony for the law of evolution, but they do not invalidate the affirmation. The proofs are overwhelming, but impossible to array in small space, because of their volume, the whole science of astronomy being requisite on the one hand, and the whole science of biology on the other. The law of gravity and the law of evolution are regarded, by the unanimous authority of investigators, as not only certain, but axiomatic. It is claimed further that these laws have been operative "through a lapse of time so vast as to cause the mind to sink exhausted in its attempt to grasp it." (LeConte), and that countless millions of centuries has been time too short to cover all that has taken place since the beginning of duration. Infinite space must be conceded to the law of gravitation, and infinite time to the law of evolution, because both are representative of an Infinite God.

This being granted, where does the genus homo come in? Whereabouts in this metamorphosis going on through time

without date does man appear? And what is his stage of perfection in a creation always in process but never complete?

Man is found on the highest rung of the ladder and has spent his racial life in reaching his position. No evidence has been adduced to show that he ever failed to keep the ascendancy in the climb participated in by all orders of creation. But while he is the latest and best expression of the cosmic process on this planet, he cannot deny kinship to his "earth-born companions and fellow mortals," inasmuch as the proofs of relationship are written and imbedded in his anatomy.

The schema of animate development from the dawn of life upon earth to the present time, or what has transpired step by step on the upward way, can be gathered by a study of man's evolution from the ovum-stage to full maturity. In the development of the individual man we have, epitomized, all that has occurred in animal creation through the ages.

For man is a vertebrate, possesses a spine, and is built upon the plan adapted to all animals in the formative period. Each animal, at the beginning, is a fertilized ovum, travels the common pathway, and emerges at birth with anatomy sufficiently grown to assume independent existence. But this prenatal period is so much alike with all, that during the first weeks of embryonic life one cannot tell from the appearance of the embryo, the order of creation to which it belongs or whether eventually it is to be a man or some other high-class animal.

During the development stage, however, the characteristics appear and the definition is complete. Apparently, all go together to a certain point, then divergences are announced, and from that day forward the animal evolves in the line of his family. The higher the life, the more multiplex are the requirements; new uses are found for the more primitive organs and functions are expanded or new organs are evolved to serve the greater ends. There is an adaptation of structure, a continuous adjustment of internal relations to external relations, in the service of the desired intention. Design, purpose, adjustment and adaptation are correlative terms, indicative of the method employed by that quickening spirit we call life, in perfecting through the ages the habitation of man.

So it transpires that all anatomy has been evolutionary, merely an adjustment of structure to meet requirements, and has been mobile or changeable, the different parts having come in response to use and demand. Comparative anatomy fur-

nishes indisputable proofs of this truth. Each higher order of animal, while retaining loyalty to the structural plan, has some parts that are new, or has converted or transformed some of the old parts to the service of new uses, but the transition is clear and direct. All through biology we find organs out of use, or so changed and endowed with larger function as to be essentially new organs. Variation of structure with continuity of function or assumption of larger function is so common as to dull curiosity, but it compels the conviction that there has been upward gradation and that all corporate being has proceeded out of that which has gone before.

The anatomy of man, therefore, is a chapter of reminiscences, and requires explanations and foot-notes innumerable to make its becoming clear. No single part of the composite man has escaped the transformations requisite in the cosmical change and many instances of the transition are still in evidence. We are able thus to discover the creation in process and to learn of the methods employed. We find, repeatedly, obsolete organs—parts of anatomy that have lost their function or have exercise to such limited degree as to be a vanishing quantity—parts no longer useful or with use so feeble as to be negligible. These are the segments of the structure that were in use in a bygone age, so far as man is concerned, or are useful in the lower orders of creation today. They are here as remains, as rudimentary parts, as vestiges. They are visible signs of things absent, lost or perished, and tell of that which has passed away, or ceased to be useful, in the present order of being. Lizards have lost the gills of the fish-stage in becoming air-breathers and snakes have lost their legs by disuse, but the transition is traceable.

It is a law of biology that atrophy follows disuse and that organs out of commission lose their function and cease to be. The fact that the majority of such changes took place before man began to take note of them is proof only that the length of a man's life, or the span of history even, is too brief a time in creative cycles to be measureable, and that rapid accomplishment in natural order must not be expected.

We now have a list of seventy-two foot-prints in human anatomy. I will instance a few of those that are external and commonly recognized. The coccyx is the remnant of the tail; the muscles of the ear, while present, are functionless or nearly so, as it is only occasionally that a human being can wiggle his

ears; the nails, now very thin and easily broken, tell of a time when the animal had to dig and fight with these implements only; the wisdom tooth, late in arrival and early in departure, is no longer required in crunching the bones of prey or the cracking of nuts; the coracoid process is the remnant of a large beak-like bone of the bird, one of the breast bones of your Sunday chicken; the little meaty part at the inner canthus or nose-angle of the eye is the vestige of the vertical eye-winker of the bird, now horizontal or of dual approximation in man; and the patches of hair on certain parts, and the feeble general growth of it tell of the time, not very remote, when hair or feathers constituted the dress-suit of all males and females alike.

Entering the cavities of the body many instances of the same kind can be cited, but I must limit the discussion to the vestigial character of the appendix. That it is here as a rudiment and is functionless, or virtually so, is confirmed by the fact that no one has given it up to his detriment. But while it plays no vital part in the economy of life, it has no superior as a mischief-maker.

The appendix is a component part of the alimentary canal, that wonderful primary division set apart by nature to prepare nutriment for the armies of the living man, and for eons did duty, and is still doing duty for many members of the animal kingdom, as a full-grown and competent intestine. In those days it was known only as the cecum and there was no appendix. In the process of creation, however, important developments in the manner of life came in that so revolutionized the order as to make necessary the change that has resulted in the shortening and diminution of the cecum to its present status and thus to the installation of the appendix.

To keep the picture in mind I will recount that the cecum is that portion of the intestinal canal situated in the right lower quadrant of the abdominal cavity, just below and at the junction of the small with the large intestine—the ileum with the colon—of which it is a part; that, roughly speaking, it is a hopper, reservoir, or sort of second stomach, into which is tumbled all the residue of the alimentary substance not yet fully digested, and which it holds in storage for such length of time as nature sees fit, or until the digestive juices have performed their services. The absorption of nutriment having been completed, however, the refuse is passed on to the exit. In all

ruminant animals and those subsisting on non-concentrated foods, the cecum is found to be a capacious organ, and this detention period of the undigested remnant is more prolonged than among the higher orders living under advanced conditions.

It is found now that quadrupeds, or animals with bodies in the horizontal, have the elongated and capacious cecum devoid of appendix, and that bipeds, or animals with bodies in the erect position, have the retracted cecum or curtailment of cecum, accompanied by the appendix.

Man—and the man-like apes—the gibbon, the orang-outang, the chimpanzee and the gorilla—are the only animals endowed with the appendix invariably. Other animals, like the kangaroo, much of the time in the upright, have the cecum narrowed at its extremity and partially transformed into the vestige; others, again, like the squirrel, rabbit, dog and monkey, occasionally are found with an appendix in semblance, thus proving exceptions to their class, but intimating and foreshadowing the transition. Generally speaking, however, quadrupeds are without the appendix, bipeds alone having the acquirement complete.

What is the meaning of this remarkable fact? What can it mean but that the force of gravity has played a part in the evolution of our anatomy? As long as the animal habitually observed the horizontal, at right-angles with the direction of gravity, so long was the peristalsis or worm-like motion of his intestine capable of rolling the mass along, thus facilitating defecation of the cecum; but when the animal habitually observed the perpendicular, at right angles with the plane of the horizon, the pounds of residue, more or less, present in the then cecum became a veritable millstone to its possessor and led to typhlitis or the "King Edward Disease," the inflammation and the destruction of the cecum itself.

In that old day the right side abdominal abscess was doubtless a frequent infliction and "inflammation of the bowels" must have claimed its full share of unfortunates. Nature, however, alert to self-preservation, took note of the situation and inaugurated a process of betterment. The cecum being too long and too capacious for the good of the animal in the vertical position, retrograde metamorphosis was employed—the condemned part was deprived more and more of its nutriment and the decline of the distal portion of the cecum followed. This is made clear by a brief study of embryonic growth.

Prior to the eighth week of intra-uterine life, the colon, ileum and cecum are of the same size, the calibre of the parts not differing. After the eighth week, however, the colon, the ileum and the upper portion of the cecum begin to grow and advance in respective formation, but the end portion of the cecum has already attained its maximum growth, relatively, and from that time fails to keep pace. Its blood-supply is reduced and feebleness in form and function is progressive. Thenceforward that portion of the cecum is the "appendix"; its decline in vigor is self-evident and it becomes a disappearing or retrogressive segment.

The appendix is larger, relatively, at birth than at later periods, and declines as age advances. But while the condition then is more favorable, it is at best but a dwarf or cripple, and its performances are those of a weakling. At no time in life does it possess organic vigor. From the state of an open and fully competent intestine, it evolves in its process of decadency, into a diminutive bowel with a canal small and easily choked, the choking being favored by the fact that one of its ends is closed—that things entering must emerge also at the entrance—thus mimicking two trains in opposite directions endeavoring to pass on a single track.

It has, therefore, limited capacity, inadequate blood-supply, and is characterized by every manifestation of malnutrition. Its lining membrane becomes thickened and spongy, resembling adenoid tissue, or growths in nose and throat, to which it has been compared, and this further embarrasses its operation. Especially is this true at its inlet, where the membrane is usually the thickest, with tendency to complete closure. As time advances, closure often occurs and there is obliteration of the canal at that point. The same thing may happen, however, at any portion of the appendix canal, and is recognized as an obliterative change, common to the retrograde process. As the evolution progresses other things take place. The appendix sometimes serves as a trap. Foreign bodies may enter and fail to get out, especially pins, which take first rank; or possibly a seed, but this is a rare happening, much overworked by the public. The daily performance is the ingress of the semi-fluid bowel-matter found in the cecum, which, once in, may have impeded outgo and be retained indefinitely behind the dam. In which case the fluid portion is absorbed and the residue, formed into a chunk, is there to stay, a fecal mass unable

to get passage. This, as the years go by, hardens into a stony formation, the appendolith, and is a foreign body, sure enough, serving as a thorn in the flesh. In point of frequency it outnumbered all other foreign residents of this part more than a thousand to one.

Coupled with this fact is another of great importance. Owing to the slow digestion in the cecum, that part is infested by microbes of all varieties. Nowhere in the system, or in nature at large, are germs found congregated in such numbers and variety. Every microbe, almost, known to the microscope, from the most harmless to the most deadly, is there resident. Some of these are the pneumococcus, the streptococcus, the colon bacillus, the hog-cholera bacillus, the tubercle bacillus, the bacillus paralyticus and the gas bacillus of Welch, which, having common access to the appendix, are ready at hand in every case of tribulation. Let abrasions occur upon the membrane, due to irritation by the appendolith, or let obstruction come, due to a kink, a twist, an adhesive band, or a stricture, and the condition is favorable to their rapid propagation. Pus is generated with inconceivable rapidity, and the calm of yesterday is transformed into the typhoon of today. The destructive process results in gangrene, with all that that implies; or the abscess reaches the limit of distention and must have greater accommodation. Perforation of the wall occurs and pus flows into the wide area of the peritoneal cavity. Frequently it is the case that ulceration progresses without immediate warning—without pain or without indisposition of the victim—till the appendix wall perforates and the pent-up sepsis is evacuated. Septic peritonitis is then the first announcement of the calamity.

It is the uncertainty attendant upon every such combination of circumstances, the liability to gangrene or to perforation at any moment in the history of such a case, that leads the observer, abreast of knowledge, to the point of anxiety and utmost tension for the safety of the patient. For wide experience has proven that no one can tell from external observation what the state of the appendix is at any time; or be able to determine the amount and the nature of the destructive change present at a given moment; or whether gangrene is established; or perforation has occurred or is impending; or whether the pus-process is melting down other tissue formations, such as ovary, bladder, kidney, liver, or other adjacent parts that may

be crippled for life in the event of the so-called "recovery" of the patient. An experienced physician, therefore, is never so unhappy as when watching a case and waiting for it to evolve for hours or days, knowing that during that "wait," progression to a fatal, or perhaps an irremediable condition, may be taking place. "I hope," says McBurney, "that I may never again go day after day to visit a threatening case, waiting bashfully for the announcement of a clearly defined peritonitis before I dare to take action." No surgeon ever operated a desperate, or an eleventh hour case in which he did not regret his inability to serve under conditions antecedent by some weeks, days or hours; for there is a time in the tide of every such affair "which taken at the flood leads on to fortune."

It has been demonstrated at all the clinics that every case of appendicitis treated surgically before the field of operation has been rendered septic by the death of tissue, or the dissemination of pus, will recover; that no one should die on account of appendix trouble and that whenever appendix conditions have been allowed to reach the critical stage, some one has blundered and must bear the onus of the calamity. It has cost innumerable lives to acquaint the faculty, and the laity also, that this is a surgical situation from the onset and that medication and all temporizing measures are useless and malpractice. Inasmuch as appendix embarrassment is the most treacherous of all morbid conditions, and as no case is to be trusted for a single moment, however simple and "safe" it may appear at any given time, there is but one thing to do, and that is to extirpate it at the earliest moment or before pus forms or perforation occurs or gangrene is established.

Debate is still going on among some professional people as to the policy of waiting for the pus to form and to be "walled off"; as to the arrival of the time when the abscess has gone "just far enough" and as to "tiding the patient over" the attack to the "interval," or time between attacks, when the removal can be made more "safely"; but all such talk is delusive and dangerous. There may be no "next attack"—this may be the fatal finish. And in any event, pus is being stored in the system, the general blood-stream is being contaminated and microbic diseases in distant parts may be generating. No one on the outside can measure his ground at such a time or tell with any certainty that such a course is devoid of peril and is for the best good of the patient.

We have been discussing in recent years whether we may intervene surgically to save a life endangered by appendix-degeneration, and at just what stage of the peritonitis intervention is advisable; or whether, on the other hand, we shall flout the surgeon, dispense with him entirely, and "cure the case by medicine," which, being interpreted, means to wait, Micawber-like, "for things to turn up"; or yet again, according to a later cult, whether we shall deny the whole thing and swear that deadly bacteria favorably situated on the delicate plane of the peritoneum are powerless to produce fatal peritonitis in a few hours.

Whoever has uncovered this situation many times by open exploration, and has seen unexpected sights with his own naked eyes, thus encountering evils in process and evils impending of which the symptoms had given no adequate warning, is led to shudder at such suggestions.

It is well known that every appendix patient has had a time in his history in which he could have insured himself against this crisis, and that after the inception of the ordeal, every hour of procrastination before the establishment of quarantine against the spread of the peritoneal sepsis, by the removal in toto of the focus, is but tempting fate and inviting doom. Is it not time in such cases for all haggling to cease over the question, how long shall this bowel-appendage be allowed to rot?

I am not oblivious to the fact that some cases reach a so-called "recovery" without surgery, but must remind you that complete restitution of integrity is rare. More than eighty per cent. of all who have had an attack will have a recurrence. Deformities, angulations, twists, adhesions, scars, obliterations of arteries and residual affections are imposed as additional burdens upon an already handicapped nature. At the best, such a situation is unattractive, is endowed with perpetual fear and bears more or less evidence of damaged anatomy.

The prime object of this paper, however, is to discuss the baleful influences of the morbid appendix prior to the acute stage; is to consider the part performed by chronic embarrassment of the appendix through long antecedent time in producing the enfeeblement of life-force necessary to the beginning and continuance of chronic ailment, and thus to recognize or discover, if by good fortune we may, the etiology or cause of much organic disease that to this day is confessedly unknown. Since only about twenty per cent. of the population have appen-

ditis during a generation, and all of the people are vulnerable at the appendix all the time, it is for the large number having ailment on that account that I plead.

I desire to point out the mal-influence of appendix-degeneration and the part it plays in hampering that nutritive process of life known as metabolism, by which is meant the sum of the chemical and vital changes taking place in the cells of the body whereby new substances, nutritious in character, are woven into the body-structure and worn-out or dead substances are removed. Inasmuch as metabolism is the supreme thing in the life-process and lies at the very basis of health, nothing can be of greater moment to human welfare than its normal exercise. Whether day by day through extended time this delicate and minute life-exercise is being properly performed or whether it is being thwarted and interfered with in ways so insidious as to escape the detection of untrained observers is matter of no secondary importance. For life-force must hold its own if all is to go well, and this is impossible if cell-activity be weakened or suspended and the nutritive changes dependent thereupon, hindered and perverted.

And here, as elsewhere, our knowledge is extended by induction, by reasoning from effects to causes, and by systematizing facts until laws emerge. It is thus that deductions are made positive and incontrovertible. We are impelled, therefore, along lines of observation and experience, inasmuch as we are convinced only by results. I cannot detain you with minute explanation or elaborate experimentation in order to define the physiology of metabolism and what disturbance of it means, but must content myself with presenting facts in the large that have gained acceptance. It is the issues of experience, after all, that constitute the best teaching. "He who is ignorant in spite of experience," said William Pitt, "is ignorant indeed."

We have been forced in recent years to face the acute problem of the appendix and have had conflict hot and heavy in determining the best method of dealing with it. At the close of this strenuous and acrimonious struggle, some facts have been revealed and left standing like lone-tree sentinels after a forest has been cleared away.

I refer, first, to the mis-diagnosis made in regard to acute and sub-acute appendix troubles. In the maze of uncertainty frequently attendant upon the diagnosis of this ailment by the

one guessing at the bedside, the roll of diseases has been called, nomenclature has been ransacked and pathological conditions have been drafted into service that could not answer present. I say no part of the body has had its ailments saddled upon its neighbors to such an extent as has the appendix. Take typhoid fever, for example, and learn that thousands of diagnoses have been made under that caption that should have read sub-acute or catarrhal appendicitis. This is one of the easiest mistakes possible, inasmuch as the location of the typhoid ulceration is in close proximity to the appendix, and, in fact, is frequently within the appendix itself, the Peyer's patches affected by that ailment being found within the ileum, colon and appendix also. The Widal test, when successful, will clarify the situation and prove typhoid fever, but this does not always work, as five per cent. or more of the typhoids are unconfirmed by that means. This test is further crippled, as a ready reference, by the fact that in many instances it cannot be furnished before the seventh to the twentieth day of the disease, and is too late to be of service in quick diagnosis. Ulceration of Peyer's patches situated in the poorly nourished appendix thus greatly enhances the peril and instances of perforation have been verified, again and again.

Frequently, too, appendicitis may be in process with typhoid, thus forming a combination of no mean import. It is the slow appendix-trouble that simulates typhoid fever, or walking typhoid, so common in practice, the chances predominating that the typhoid bacillus is not the guilty party. Recently I was called to see a girl in the third week of so-called "typhoid," with daily temperature of 104 and all the well-known svmptoms. The diagnosis being questioned, immediate open exploration revealed a far advanced catarrhal appendix, removal of which broke the record and permitted speedy return to good health. Kelly, of Johns Hopkins, states that the appendix is involved in one-third of the cases of typhoid fever; that of the perforative cases five per cent. are appendical and that all typhoids show alteration of appendix from hyperæmia to diffuse inflammation and ulceration.

Many instances of that nondescript, "malaria," are referable to the same source, as has been proven by its non-return, both in season and out, after extirpation of the appendix.

Practically, all peritonitis situated in the right side of the lower abdomen is due to sepsis let loose by an incompetent

appendix, and almost all general peritonitis, not due to sepsis through the pelvic passages of the female organs, has the same common origin.

We know further that the most prolific source of tubercular peritonitis is embarrassment of the appendix. How frequently do we find in early abdominal operations for this ailment the gray deposit of tubercular degeneration already in evidence upon the appendix and immediately about its site? And how often does it occur that lung-tuberculosis and peritoneal tuberculosis are coincident, thus suggesting relationship, if not sequence?

Since the advent of grip so rapid has been the increase of appendicitis that many have charged grip with the causation of the acute local difficulty; but this is a reversal of the order, another attempt to put the cart before the horse. It is a *post hoc*, but not a *propter hoc*. The grip has only uncovered the vulnerable part, has found the weakest link in a chain forged long before the grip arrived.

Every one should know that storage of sepsis anywhere in the body may be responsible for indefinable auto-infections and that vitiated life-blood and enervated life-force are correlative conditions, frequently consequent upon the local situation in question.

So it is that latent appendix-sepsis, not yet volcanic or of the explosive type, can impose itself upon the circulating medium, its disease producing microbes going on the blood-current through the ways and byways of the system, seeking things they may devour; and thus, that many ailments, either acute or chronic, situated distant from the appendix, can owe their causation to the sepsis in question.

It has been proved that there is a causative relationship between morbid appendix and rheumatism, a fact commented upon by many clinicians, the recognition having been made first by Sir James Grant in 1893. Finney and Hamburger, in *American Medicine*, 1901, emphasized the fact that the articular disease may precede as well as accompany or follow appendicular inflammation.

The association also of morbid appendix and tonsillitis has been established, the frequent tonsillar difficulty or sore throat serving in the capacity of the detective—the Sherlock Holmes—of the chronic appendix. Repeated attacks of rheumatism associated with appendicitis and repeated attacks of appendici-

tis associated with tonsillitis are in evidence and these repetitions are so remarkable as to put the appendix upon the defensive—proofs of its innocence being called for in every such situation.

Abscess of liver, infection of gall-bladder with gall-stone formation, and subphrenic abscess are now recognized as secondary to appendix infection through the portal circulation, the bacteriology of the abscess being identical with the flora of the appendix.

M. Barba, in *Semaine Medicale*, January 16, 1907, relates several cases of pleurisy that had appendicular origin, malady at both points being coincident, the pleurisy coming second. We thus obtain glimpses of the genesis of pneumonia, the disease being caught from the blood of its victim.

With rheumatism and appendix-sepsis closely allied we do not have to stretch the inference in making claim that rheumatic affections of the heart, especially endo-carditis or ulceration of the valves of the heart, known to be secondary to rheumatism, is an appendix relative and due to infected blood. There is great cogency to the fact that all internal microbic affections can get their infection first-hand from the blood. It is high time for this discovery to be widely published.

The paralysis of function incident to long-continued embarrassment of the appendix has bearing upon many delicate performances in the life-arena and accounts for malnutrition or mal-metabolism on a large scale. Many cases of pernicious anæmia, arterio-sclerosis, chronic or amebic diarrhoea, sciatic and other neuralgias, epilepsy, paresis and lunacy are chargeable to this fox long at work in the destruction of the vines.

Here are convulsed babies dying of gastro-enteritis and flinching in their coma only when pressed at McBurney's point; here are dyspeptics and diet-list observers with proofs of vestigial difficulty paramount; here are old neurotics "gey ill to live wi" and mostly at the outs with their fellows, like Thomas Carlyle; here are nose-bleeders, neurasthenics, Saint-Vitus Dance people and hypochondriacs, dinning the fact of their nervous prostration and physical incompetency forever in our ears, the most of them being appendicitides.

It will be profitable to dwell a moment upon the genesis of acute appendix trouble, to read a little of the history of every such development and to learn that no case of the kind ever springs into the arena, Minerva-like, "full formed and pano-

plied for war." Every case-record will show that there has been long gradation downward to that event. There have been premonitions innumerable through the antecedent life, telling in ways unmistakable that a storm was brewing. Whether it has been zig-zag flashes with thunder or less emphatic expressions of the elements, the announcement of approaching storm has been none the less clear, and everyone in danger has had opportunity to reef sail and make port.

Occasionally an appendix can pass examination and prove itself to be non-troublesome to the end of life, but it is an exception. Almost every person at some time is called upon to pay it tribute in acute or chronic ailment, his failure to appreciate this truth being due to the fact that until this day the most of its baleful influences have escaped recognition.

Thus far we have learned to detect only the grosser forms of appendix embarrassment—only the rapidly progressive peritoneal inflammations called appendicitis—and have not realized at full value the potency for evil of the long-continued irritation borne by the decadent appendix.

Go back to infancy and examine the equations of the problem. Must there not be something very wrong when fifty per cent. of all born into the world are dead before they are ten years old? And when one out of every three, before the age of five, has passed that bourne from which travelers do not return? Is it not remarkable that of the half remaining beyond the tender age, a large percentage take early departure or remain as physical beggars, starved as to their vitality and incompetent to fill the requirements of good health? Is it a secret that the most of the deaths in early life are due to malnutrition, to mal-assimilation, to mal-metabolism? Is it true that the troubles of the baby's stomach are the foundation of the most of his misfortunes? And that all is well if his alimentary canal is performing in accordance with design? Let her answer who has spent nights and days for weeks, vainly striving to appease its crying, and unsuccessfully endeavoring to overcome its colic, indigestion, constipation, insomnia, gastro-enteritis or other evidence of nutritive disturbance. Let the carloads of patent baby-foods in every city also bear witness. Whether it be summer-complaint, cholera-infantum, scrofula, rickets, hip-joint disease or any type of tuberculosis, the underlying fact is malnutrition. There is no discount to the fact that in order to have the baby thrive he must have ample food made a part of him.

It is an inspired truth that all ailment is due to some causative factor and that symptoms are but effects. In acute illness the cause may be transient; in chronic illness it is usually still operative. In the latter case there has been loss of battle-power till resistance has been swept away and nature has been crowded to the wall. Coming into the world with a birth-right to seventy years of vigorous life, the individual who does not obtain it is defrauded of his belongings. Death should come only as the result of accident or at the expiration of maturity.

Is there no escape from the mal-assimilation eventuating in tuberculosis, from the low nerve-tone antecedent to insomnia, neurasthenia and insanity, to the starvation underlying all untimely break-down of life-ability? Must the genus homo of all the earth-families be the single burden-bearer of premature decay? Or, is it possible for man, also, to make a respectable showing in masterful acquirement and at every stage manifest ability to meet the common requirements?

Nutrition is the primary requisition of development. No plant or animal can come to maturity without pabulum. It must have daily re-enforcement in all that pertains to upbuilding and maintenance. "Give me food!" is the cry of the world; and if denied leads to feebleness of life-expression and early death as a consequence. Whenever my electric battery has low voltage it fails to work. Disease, therefore, is mal-nutrition. The elements necessary to life are not assimilated and weak performance and final inability is the result. These truisms must be utilized by all culturists of human life.

Why do only some people take tuberculosis when all are infected? The bacillus of Koch is no respecter of nostrils. In some instances he finds things in readiness for his coming, his welcome is assured, and he remains to the feast. In other instances he finds a wall of resistance in place—vital force in possession—and this being inhospitable to microbes, he beats a hasty retreat. Maggots thrive only upon dead bodies or upon bodies so feebly endowed with life as to be but one remove from death. The consumption cure, therefore, is a mere problem of nutrition, a matter of rebuilding the defense, a question of recuperating vital energy.

To acquire this desideratum, condensed foods have been employed, climates have been sought, and fresh eggs and life in a tent are advised. But whether it be tuberculosis or insan-

ity or any chronic ailment that is under discussion, it is a question first and last of physical incompetency. One must first become a nervous prostrate before he can join the invalid army; must be disqualified for duty in his life-work and come bearing a flag of truce. He is a physical beggar, has little or no "fight" in him, and will be thankful even for the crumbs that fall from the Master's table.

In order to be serviceable to such an one help must be extended in a reconstructive way; we must secure an "about face" in his physical going; life-force must be re-established. Every such person must have nutriment made a part of him. It is not a question of food-offering, but food-utilization. Good blood must be manufactured by the nutritive apparatus; and this, being transformed into vital force, will answer the requirement.

Every embarrassment to the process of nutrition, therefore, should be ruled out. Search should be made within, as well as without, the body for the causation of malnutrition. Every handicap, however trivial, should be abated so that the individual may have a fair chance in his race for life.

I cannot go into the many phases of malnutrition further than to recognize them and to centre your thought upon the potency for evil of that paramount handicap, the appendix vermiformis. We have thus to do at first-hand with the nutritive apparatus and it is remarkable that this malign factor should not have claimed due recognition before now. Failure to do so, however, has been dependent upon the fact that the appendix has been an "undiscovered country" until recently and that exploration has been slow in completing our knowledge of it. But the law of evolution has clarified the situation. The day of delivery has dawned for millions of the condemned. From this day forward removal of the appendix will not be reserved and reluctantly employed for the one alone imperilled by peritonitis, but will be eagerly sought by every consumptive and physical incompetent at the inception of his downgrade if there be but a ghost of a probability that the appendix is the ball-and-chain that fetters him.

Continue for a moment with the consumptive as an example and note one or all of the following conditions: He has been a weakling from birth; has "inherited" consumption, whatever that may mean; has been a finical eater; has had gastric disturbance and rectal trouble; has been sensitive to over-

heat or over-cold—to sunstroke, or to cramp while swimming; faints easily; sickens at sight of blood or on hearing a gruesome story; has learned to seek easy jobs. In addition, he takes cold easily and shakes it off with difficulty; recuperates slowly from his illnesses and manifests in many ways that he is below par. Cough is persistent, emaciation is progressive, daily fever and night-sweats are present, and lo, the tubercle bacillus is in his sputum! Now we must do something to help him! He must fly the country; he must seek climate; he must make great effort, poor giant though he be, and at best, with feeding and open-air, consume months and years in securing but a tardy result—frequently disastrous defeat! The hound is unleashed an age after the fox has started!

Such an one may never have had an inkling of appendix trouble or a pain recognized as suggestive thereof, but pressure at the appendix site may cause him to flinch, the same not occurring elsewhere on his abdomen. This is a morbid condition in the centre of his nutritive apparatus, probably present from the first. Has this had anything to do with the causation of his trouble? It would be an invaluable fact if ascertained and will require but twenty minutes to prove; and if proved, but half an hour to eliminate. It will take a vacation of but ten days in a hospital to determine whether he can remain at home with his friends and reacquire all that has been lost, thus averting the deprivation and home-sickness of the retreat; the long wait and the terrible ennui of his incapability; and finally his death away off there among strangers! Is it possible to get well of consumption quickly without all the trials and disappointments of the older method? And if not, may we not by the removal of nature's burden, thus giving freedom to her best endeavor, abbreviate the illness and enable her more promptly to regain the desired haven?

We have gone far enough with extirpation of the appendix for the cure of tuberculosis to report that such glad possibility is a reality; that almost every such "Richard" can be made himself again in a brief space; and that the "great white plague," now charged with one-seventh of all mortality, can be robbed of its pre-eminence.

I have wearied you, perhaps, in outlining the foundation for such an accomplishment, but the attainment in question would justify any outlay. It is now but repetition of experiences that is called for and this can be had everywhere. If the appetite

can be re-established, if the scales will tell by the week that pounds are being added, if tubercle bacilli are starved and killed by fresh vitality, night-sweat and hectic will disappear, cough will abate, and there will be glad consummation as the weeks and months go by. Time must be granted for recuperation, but the downgrade having been reversed, the top of the hill will be reached.

The first accomplishment in physical reconstruction is the re-establishment of stomach-ability with consequent increase of weight; and this is result number one after the surgical remedy.

But such work must be opportune. There must be no procrastination to the eleventh hour. After much destruction of lung tissue the die is cast and the inevitable cannot be averted. Sea-bathers are warned of the fatal undertow that will carry them out and suck them under if they venture too far. Boatmen above Niagara are aware of an irresistible current that must be avoided, and pull for the shore in time.

It should be understood that the nagging and fret to the sympathetic nervous system by a morbid appendix, kept up from birth-time forward, and that has resulted in general bankruptcy, may have entailed or established other organic weaknesses that must have attention also. This is true with regard to ovarian integrity in girls and young women. With few exceptions the ovaries are found undergoing degeneration also, usually secondary to the appendix, and require conservative work to avert continued trouble on their own account. Rectal trouble also, a concomitant and sequence of appendix trouble, must have abatement if nerve-waste is to cease.

If now it be true that appendix degeneration is a large factor in the causation of physical incompetency and that millions of people in every land, many of them supposedly in good health, are being taxed to a ruinous degree by the aforesaid degeneration, why is it that they themselves are ignorant of the fact; have experienced no symptom of trouble at McBurney's point and are amazed and incredulous when informed of their situation? Why should not every one be able himself to detect a condition fraught with such ill consequences and thus have opportunity to flee from the wrath to come? Fortunately, the answer is at hand. We have been slow in understanding nature's language, have misinterpreted the signs and flag-signals that have been made to us, and thus have marched blindly groping our way.

All knowledge reaches the mind through the medium of the nervous system, by five or six ways called the senses. At first, we trusted these cables of information implicitly, then we began to learn that some of the messages had dual or multiple meaning, that analysis and differentiation were called for and that things were not always what they seemed. All of this had relevancy to the operations of the conscious brain, to the intellectual or cerebral part of it, inasmuch as all consciousness is dependent upon the cerebrum. Going a step further, we realized that life had a way of getting on without reference to what man might be thinking about; that before birth and attainment of reason, during sleep and forgetfulness, the life-work was going on, and that an intelligence infinitely superior to any voluntary operation was in possession and working ceaselessly for human welfare.

Thus it was learned that we had two brains or nervous departments, the one conscious, the other subconscious; and that while the one ministered to the mind of man direct, the other had no reference to, or had no direct communication with, the mental operations of the individual, but was here to do the behests of nature herself in the maintenance of organic life. The cerebro-spinal nervous system, presiding over the sensitive nerves, reports directly, therefore, to the conscious part of the brain; the sympathetic nervous system, presiding over the insensitive nerves, reports directly to the subconscious part of the brain, and for the most part does not report to the conscious brain at all. The conscious brain is a late acquirement in animal history; the subconscious brain has been here from the beginning of animate evolution and has been supreme in life-operations always. In general, sensitive nerves are superficial reporting on external surroundings and ministering to the perceptions. Sympathetic nerves are internal and deep, conducting the work of organic life and ministering first of all to the subconscious ego. Sensitive nerves tell exactly where the impression is made; sympathetic nerves may call upon any nerve in the body or a dozen nerves here and there simultaneously, to voice the impression, and may thus speak to the mind only by indirection. Any sensitive nerve, however, may be drafted into service to make a report, but does so as a substitute.

Failure to understand the method of nerve-reporting in use by the sympathetic nervous system accounts for the aforesaid

confusion. The interpretation is not difficult to the one who has learned the language.

I have outlined the expressions of the physical beggar and need only to emphasize the agency for evil of subconscious nerve-irritation long continued. It is one thing, however, to say that all physical incompetency is due at the beginning to appendix ailment and quite another thing to say that every victim of morbid appendix is physically incompetent. Make note of the distinction.

Men have advanced along many lines of knowledge and admit that culture stands for a great deal. What it means in horticulture and floriculture and any culture worth mentioning, it is unnecessary to specify, but the tree-grower can testify to the benefit following the removal of dead limbs; and the "beauty" rose and the rich and rare fruits enjoyed by all tell of what has been accomplished from beginnings the most unpromising.

Shall there be, now, no such thing as homoculture? Shall man not give attention also to his own physical betterment and thus take a hand in his own evolution? Or shall the dead branches of his tree be retained till the decay reaches the heart of it? Shall the human tree be the only tree in all the world incapable of betterment? And shall it bear forever the tag "Hands off"?

SPECIFIC MEDICATION IN THE TREATMENT OF TUBERCULOSIS.—Three years ago, Sawyer, of Asheville, N. C., reported 14 cases of pulmonary tuberculosis treated with the watery extract of tubercle bacilli with good results. One of them has since died of pneumonia, after five years of apparent health. Since then he has treated 38 other cases, and all have apparently gotten well and remain so at the present time. The good results are evidently due in part to the fact that the author makes a careful selection of his cases, accepting none but those in the early stages. Under the treatment there was gain in weight, night sweats when present ceased, cough and expectoration became less marked until they ceased entirely. All patients regained a state of health equal to, and sometimes exceeding that which they enjoyed before their illness. The author considers the remedy perfectly safe in the hands of an experienced and careful practitioner, as he has never seen any unfavorable symptoms follow its use. Undoubtedly large doses improperly used, especially in the beginning of the treatment, may cause reactions somewhat similar to those of tuberculin, but it is much safer than tuberculin and is not cumulative in its action. Unfortunately, the author does not state the method of preparing the extract nor does he give its dosage.—*Therapeutic Gazette*, March 15, 1907.

CASES OF CEREBRAL TUMOR.

BY

N. B. DELAMATER, M. D., CHICAGO, ILL.

(Read before Sectional Society on Mental and Nervous Diseases of A. I. H.—1906.)

Miss W., 22 years of age, clerk in the office of a prominent oculist, had a rather mild attack of scarlet fever. Recovery rather slow; a mild nephritis as a sequel. Apparently entirely recovered. Family history good; previous history of patient good.

About nine months succeeding the scarlet fever began to notice vision not quite clear. In about a month attention was called to it. Dr. George, on examining, found what he suspected to be a primary atrophy of the left optic nerve; a month or two later a more marked atrophy in the left, with a suspicion of the same condition in the right. During the following year the simple atrophy continued to develop. In the meantime she was married. She became totally blind. Every effort was made to arrest the progress and restore vision, without avail. Consultations were had with oculists and neurologists. Aside from the loss of vision she seemed perfectly well.

On my examination I failed to find any evidence of any neural trouble aside from the atrophy. She then, as a last resort, took up Christian Science, and I lost track of her for a year or so. When I learned of her death I took pains to inquire, and found she had for a few weeks been suffering at times with an occipito-frontal headache, and only a few days previous to her death a very sharp increase in the severity, and accompanied with projectile vomiting. The pain and the vomiting were very severe during the last evening, but subsided about midnight; she went to sleep and never awakened.

The coroner's physician made a post and found a small fibroid tumor attached to the inner surface of the pia, and between the hemispheres, pressing on the optic tract.

Mr. C., 25 years of age, a bookkeeper; married. Family history clear; personal health history good.

First observed that it was becoming difficult to make out the figures on his books. Secured glasses from an optician, which did very little good, and that for a very short time. Consulted one of our most prominent oculists, who found beginning sim-

ple atrophy of the optic nerve. In all other respects health and strength seemed perfect. Some time later I was asked to see the case to determine, if possible, the cause of the atrophy. I failed entirely to throw any light on the case. About two years later I had a report from the family that he was suddenly taken with a very severe attack of fronto-occipital headache, with vomiting, and died in a few hours. An interne in a small hospital made an autopsy and found a small hard white tumor, located as in previous case.

Mr. J., 19 years of age, shipping clerk; single. Father died at age of 41 from pulmonary tuberculosis; mother still living, rheumatic, having had three or four attacks of acute inflammatory rheumatism; joints much enlarged.

The patient had been strong, healthy and robust until about six years of age. Then, for no assignable reason, became listless, and poorly nourished. After two or three years picked up and while still thin was ordinarily strong and healthy. He began to lose his sight very slowly. Consulted a near-by physician, and tried several pair of glasses, finally went to a clinic, and was told he had a wasting of the nerves of the eyes. Later the boy was brought to me. I failed to find evidence of any cerebral or spinal trouble, but on account of previous cases suggested the possibility. Saw nothing more of him. He went into the country. I learned later of his death, after many weeks of very severe neuralgia of the head, as it was reported to me, and that a post mortem had revealed a small tumor right in the middle of the brain, as the doctor told his mother just where it pressed on the eye nerves as they came together.

Mr. S., 24 years of age. Office work in a large house Strong and healthy. Had worked under an electric light much of the time for two or three years. Sight began to fail; paid no attention to it, probably because his mind was occupied in arranging for his wedding. Was married; went on a two-weeks' trip, when he went back to his work found a very decided loss of vision. Consulted an oculist, who diagnosed optic nerve atrophy, and treated him for a long time. He found the case so interesting that he had him see four or five of our best oculists. An uncle, a physician, asked him to consult me. As in the others, I found nothing to warrant any opinion aside from simple optic nerve atrophy. I, however, stated to the uncle my previous experiences and a possibility of such being the case. He was under my care for a number of months, but gradually

grew worse, until he became totally blind; could not detect light. All this time he remained in excellent health and strength. Took up the study of massage; went to practicing it; then commenced the study of medicine. Has completed his second year of medicine. Became acquainted with Dr. Kent, who commenced prescribing for him. In a year's time the vision had improved so that now he can read the second line on the test card at four feet.

In none of these cases is there any possibility at all of syphilis.

DIAGNOSIS OF CROUPOUS PNEUMONIA.

BY

E. R. SNADER, M. D., PHILADELPHIA.

THE diagnosis of croupous pneumonia is sometimes easy, but oftener difficult. Exceptionally typical symptoms are alone sufficient, as chill, fever, pain in the side, rapid respiration, rusty sputum. Unfortunately, however, for the ready diagnosis of this affection, the symptoms alone are seldom sufficiently distinctive. Lobar pneumonia is an infectious disease, and like all maladies of this kind, is subject to the most bizarre variations in both symptomatology and physical signs. I am personally beginning to believe that almost any kind of germ can set up a croupous pneumonia with as ready a facility as the pneumococcus. Some of the difficulty in diagnosis is due to the fact that frank, uncomplicated cases are rare, and to another fact, that lobar pneumonia so frequently complicates not only acute, but also chronic affections, and hence the symptomatology of the pneumonia proper is obscured or so intermingled with that of the malady it accompanies as to render the symptoms present susceptible of more than one interpretation, and if pneumonia be not thought of, and physical signs not sought for, the diagnosis is not made. While these variations are very constant in pneumonia so far as the symptoms are concerned, the physical signs are also not often strictly classical, although a diagnosis made without physical signs is almost untenable to a thinking physician. Fortunately, although somewhat variable, the physical signs, properly interpreted, are ordinarily sufficient to diagnose the disease, and

also to interpret the symptoms present and give them their due significance. I have seen cases so absolutely without subjective symptomatic phenomena pointing to the lungs that these organs were not even suspected as the source of illness until a collapsic crisis ensued, and a careful search revealed the signs of a croupous pneumonia not dreamed of prior to the occurrence of collapse. This picture is really not infrequent. Some queer combinations of symptoms and signs may be mentioned as showing not only the atypical character of many cases, but also the latency and absence of other phenomena that in some cases materially assist in coming to a diagnostic conclusion: 1. Sudden onset, with a chill, no pain, no cough, no sputa, respirations 25, fever $101\frac{1}{2}$, dulness over middle lobe of right lung, broncho-vesicular breathing, no rales, ending by crisis with subcrepitant rales, with cough and muco-purulent expectoration. 2. Moderate onset, violent cough, blood-streaked sputa, afterwards sero-purulent, respirations 30, tympanitic note over lower left lobe, crepitant rales. 3. Gradual onset, supposed to have typhoid fever, temperature varying from 100 to 104 F., respiration 30, pulse corresponding to temperature, delirium, no pain, no cough, great loss of weight and strength, semphonic percussion note over upper left lobe, bronchial breathing, with a few scattered subcrepitant rales, pseudo-crises, followed next day by a terrific drop in temperature (92 F.) and death. 4. Slow onset, sick two weeks, with apparently catarrhal jaundice, when suddenly the patient collapsed, with rapid heart action and rapid respiration, the temperature falling to 90 degrees F., no cough, no expectoration, no pain, no fever until three days before the collapse. Physical signs: Dulness on percussion over right lower lobe, bronchial breathing, a crepitant rale here and there, with an abundance of subcrepitant rales over the right lobe and over the entire left chest, from pulmonary oedema. 5. Herpes on the lips, temperature, 103, no pain, no cough. Complete consolidation of left lower lobe. 6. One cheek flushed, temperature 101 F., tonsillitis, slight dulness over entire left chest, with crepitant rales, and entire suppression of respiratory murmur. No pain, violent cough; no sputum. 7. Slow onset, temperature 101 F., pulse 90, pain in the side, dry cough, no sputa; dulness on percussion over left lower lobe, no sounds of respiration, no fremitus, no vocal resonance, dulness confined to a lobe, and no paravertebral triangle of dulness on opposite side.

I could go on indefinitely mentioning cases of pneumonia that presented no symptoms, or atypical ones, and all sorts of combinations of physical signs; but the narration of these cases will perhaps not enable you to diagnose the next atypical case that occurs in your practice; but my purpose will have been subserved if I simply reiterate some points that I hope have been rendered obvious by their recitation: There is no one thing pathognomonic of croupous pneumonia. It can be diagnosed rationally from fifty different standpoints. The best diagnosis is made when both the symptoms and signs can be correlated and made to mutually interpret each other. The onset is by no means typical; pain in the side is often absent; fever is not necessary to the diagnosis. Rapid respiration is the most constant sign directing attention to the lungs; but the respiratory rate is sometimes not altered at all, although respiration may have shown anomalies before the case came under your observation. The characteristic sputum, in connection with otherwise meagre evidence, is of great importance; but it is not pathognomonic, for other lesions in the lung can produce it. The pulse-respiration and fever-respiration ratio are invaluable in the beginning, but these factors are not essential to the diagnosis. The crepitant rale is the most valuable of all the signs of croupous pneumonia, provided all other conditions capable of producing crepitant rales are ruled out as not being present in the case.

These anomalous cases do not occur alone in children and old people, be it remembered, but can take place at any age. I have never seen a typical case of pneumonia in either a child or an old person; they always vary in symptomatology, mode of evolution; and by the fact that the general symptoms almost always point to some other organ than the lungs. A sign of considerable value, particularly in cases of so-called central pneumonia, presumably without any or without interpretable physical signs (this variety of pneumonia, although made much of in the textbooks, I must confess never to have seen) is a perceptible pause at the end of inspiration, followed by an audible or even grunty expiration. When present in children and old people particularly, but practically with any one, is mightily suggestive of pneumonia, and taken in connection with other possibly slim data, may be considered practically diagnostic.

THE TUBERCULOSIS PROBLEM IN THE HOSPITAL FOR THE INSANE.

BY

ROY C. MITCHELL, M. D., MIDDLETOWN, N. Y.

A PART of the limelight that for some years has been turned on the general problem of tuberculosis has fallen on a less widely exploited, but nevertheless quite important question: the consideration of the tubercular insane.

We gather some conception of the numbers involved from the United States census report of 1903, which states that there are 150,000 insane persons in the various institutions for the insane of the country. This number is gradually increasing. During the past seventeen years 15 per cent. of those dying in New York State hospitals have died of some form of tuberculosis. This is a reasonably careful estimate, but from the nature of things it is probably conservative. When we compare it with the general tubercular death rate of 12 per cent. (United States census, 1900,) it assumes still more significance.

In this paper I purpose to review the work done in this line at Middletown during the past four years. It may be suggested that the subject matter applies more particularly to local conditions, but I think that this is not the case. The great majority of the insane fall into fairly well defined groups and these are to be found in all institutions. The relation of these groups to each other may vary to some extent in different hospitals, but in general I think they will average up pretty well.

It has been said that the patients received at Middletown average better (from the social and intellectual point of view) than those of any other New York State Hospital, and I believe this to be true. In so far as this is a factor we have that advantage over the other hospitals in the treatment of tuberculosis. But from their nature the greater part of the difficulties which I am about to take up are to be met everywhere.

So far as I have been able to determine, the social status of our patients prior to commitment is much the same as that of the sane tubercular patient. The same etiological factors have been at work, the same paths of infection have been traversed, and the same pathological changes are in evidence. In short,

in the beginning the insane tubercular patient is in no way different from the sane tubercular patient from the strictly physical point of view.

But at this point entirely new conditions arise that have a material bearing. First of all, the patient's mental condition has to be considered. This is a variable quantity, but in the majority of our cases there is some degree of deterioration present. In any event, there is always a serious mental condition present which frequently overshadows the tubercular process. The actual and potential loss of the insane patient to the community because of his tuberculosis does not figure so largely as does the sane patient because he is already removed from civil life on account of his mental trouble. This alone in the majority of cases will render him subject to custodial care for the rest of his life. When we consider that a good percentage of these patients are public charges this economic side is of still less significance.

In the treatment of the individual case difficulties not ordinarily experienced crop out. We all know how hard it is to make a definite diagnosis at times, even with the most favorable co-operation of all concerned. In some of our cases it seems as if everything tended to obscure the case. The clinical history was often negative. Frequently the friends knew of nothing positive, occasionally they were evasive, and, of course, the patient's own story had to be taken with more or less reservation. Because of the mental condition the subjective symptoms are no more reliable. A paranoid patient may conceal them or, thinking them a part of his persecutions, take them as a matter of course and mention them only casually. A maniac case feels well, is elated, and so busy with various things that he is apt to make light of them. The depressed patient may feel that it is not worth while to discuss his case; no matter if he is sick, a serious illness may end his troubles. The deterioration types are likely to be too demented to give intelligent co-operation or are too indifferent to care about themselves. In some of the more intelligent cases I have found that there is a tendency toward evasion and to make light of anything that points toward tuberculosis (a trait that in my experience is not limited to the insane patient). A few of our patients co-operated quite as well as one could wish. Our main reliance then is, of necessity, the physical complex, but here again the problem is not always easy.

In some the diagnosis is merely a matter of being familiar with the physical signs. In some the co-operation in examination is indifferent. In others, especially deterioration types, the patient is passive, pays little or no attention to requests, and says nothing. Some suspicious cases resist the physical examination, and fight actively at times, so that the findings are more or less unreliable.

In almost all of the cases the last doubt was removed by the finding of tubercle bacilli in the sputum. Considerable difficulty has been experienced in getting satisfactory specimens from all. Some patients persist in swallowing their sputum, others expectorate about promiscuously, occasionally there is a patient who tries to avoid giving a specimen of sputum just as hard as you work to get it, and gains his point. A number of times we have been obliged to go to the ward and make the smears from a bit of sputum which has fallen on fresh sheets spread for that purpose. The monthly weight list has been the most reliable source of early information, a gradual loss of weight being the only thing to call special attention to some patients. The cough comes so late and is so easily overlooked in a good many cases that we have not given it the early diagnostic importance that it usually receives. We have been disappointed in getting the usual temperature curves, but this is possibly due to other causes, at least more data must be had before any definite statement is made. Diverse combinations of these various things have come along in the course of our clinical work and have caused much more work than one at first would think warranted. So puzzling is the diagnosis at times that we think of tuberculosis for months without being able to say so definitely, then something happens and the disease comes out clearly, perhaps to pursue a typical course. We have made some mistakes in diagnosis, some errors in both directions, but I do not recall a case in which any particular harm came to the patient because of them.

So far as the mental condition permits we aim to treat our patients in accordance with the generally accepted methods; bed treatment, at first, plenty of light and an abundance of fresh air are the first things looked after. Unless something contraindicates, a generous mixed diet and plenty of milk are given each patient. The remedial treatment varies; it is considered of secondary importance. Isolation is carried out so far as the present building arrangements permit except with

a relatively small number of intelligent patients. We have had to exercise unusually strict hygienic measures because of the carelessness and lack of co-operation on the part of some patients. As much of the sputum as possible is collected in vessels containing germicides, that of untidy patients on sheets spread about the beds. No sputum is allowed to dry. The floors are scrubbed daily with disinfectants. No dust is allowed to accumulate. The dishes and other utensils are scalded after use. The bedding and all soiled linen is carefully collected and sterilized by steam prior to the regular laundry regime. Twice a year the ward is given an especial overhauling and is then fumigated with formaldehyde.

In general we may say that the prognosis is not so favorable as among sane persons. The large percentage of more or less deteriorated patients accounts in part for this. With these the active interest and hearty co-operation that the patient should have are replaced in varying degree by desultory co-operation, passivity, obstinacy and resistance. On the other hand the deteriorated patient is not so apt to worry about himself, a condition so frequent in general practice. Nor does the maniac case worry; he makes too light of physical ills and at times it is a problem to control his activity so that he will not exhaust himself to such an extent that the tubercular process gets a firmer hold. I regard these as the most favorable cases, for as soon as the period of hyperactivity passes they co-operate well. The knowledge that he has tuberculosis is apt to make the depressed patient more depressed, another trouble has come to one already overburdened, there is something more to worry about. The paranoiac case may regard the statement that he has tuberculosis with distrust and tell you that you misinterpret the changes that have occurred in his lungs, making an explanation in accordance with his delusional developments. Some of these patients will listen to a reasonable explanation, others reject it peremptorily. Too much attention to a patient may cause him to think that you have an undue interest in him. The co-operation that such patients give is obviously variable and capricious.

In the senile cases the tubercular condition is usually a very old process and fairly well localized, something that drags on for years until failing health favors an extension of the disease or some intercurrent trouble takes them off.

In the exhaustion type of psychosis, tuberculosis may be one

of the leading factors and as such must be considered of grave importance.

CLINICAL REVIEW.—During the past four years 155 cases of tuberculosis have been treated, 77 men and 78 women. Of these 23 were considered incipient, 106 in a more advanced stage, 25 latent or old fibrous retracted apices, and 1 case of general tuberculosis. Two thousand two hundred and eight patients have been cared for during this time, practically 6 per cent. of them were tubercular.

The mental diagnosis of these cases (Kraepelin's terminology) was as follows: Dementia præcox, 78; epileptic psychoses, 10; senile psychoses, 19; general paresis, 1; intoxication psychoses, 10; infection and exhaustion conditions, 5; maniac-depressive insanity, 12; melancholia of involution, 11; paranoiac condition, 6; psychæsthenia, 3. Observe that 70 per cent. of these cases were of the various deterioration psychoses, and that one-half were dementia præcox types. This is partially accounted for by the fact that the population of almost all large insane hospitals is made up chiefly of deteriorated persons.

The results of treatment summed up briefly follow: 33 cases (21 per cent.) arrested, 6 cases latent or fibrous apices, 18 cases discharged improved, 2 cases discharged not improved, 48 cases (31 per cent.) remain active, 48 cases have died. Of those cases active at the present time 80 per cent. are of the various deterioration types. They approximate $3\frac{1}{2}$ per cent. of our present population (1300).

AUTOPSY REVIEW.—In one-half of the patients autopsied during this time (160 cases) tubercular lesions were found. In those cases dying of tuberculosis (21 in number) 3 were found with healed lesions in one lung. In those dying of other pulmonary conditions (11 cases) 5 showed healed lesions in both lungs, 5 in one lung and 1 showed both healed and active lesions.

Of those dying of various other diseases (128 cases) 24 showed healed lesions in both lungs, 14 healed lesions in one lung, 6 had both active and healed lesions, 6 had active lesions in one lung and 2 had solitary intestinal lesions (ulcers and enlarged mesenteric glands).

The significant fact of this review is this: 48 (30 per cent.) cases had healed lesions that in all probability had not the remotest relation to the cause of death, while 15 cases (9 per

cent.) had active lesions of such minor importance that they were not considered of special significance.

General Outlook.

It is difficult to say at so early a time just what will be accomplished in this field. A good beginning has been made and the interest seems fairly widespread. New York has made special provision for tubercular patients at four State Hospitals and no doubt more will be done as the need is shown. A number of other States have made, or are about to make, similar provision.

The results of the treatment of this class of patients can hardly be expected to compare favorably with that done on the outside. The matter of isolation is practically under absolute control and this alone should insure a steadily decreasing death rate. Some of the difficulties I have enumerated will partially offset this one excellent feature.

In following out this special work the general tuberculosis problem should always be kept in view. Intelligent consideration of the details, systematic routine and persistent work are the essentials. Supply these and a reasonable degree of success is bound to come in time.

METABOLIC ACTIVITY. The following is an extract from an article by Dr. H. M. Gay, in *The Hahnemannian*: "In my opinion these studies in the opsonic index have done more to clear up the matter of specific vital resistance to disease than has been done since the time of Hahnemann. What he saw by instinct a hundred years ago is being laboriously proven in our laboratories. What has been called the monumental achievement in medicine in the last fifty years—I refer to the discovery of anti-toxin—is based upon the same principle. We find also under discussion at the present time, much both in text-books and in scientific monographs, concerning auto-intoxication and its relationship to disorders of metabolism and digestive disturbances. It seems as though, while all our acute diseases are manifestations of intoxication, introduced from without the body, all our diathetic diseases are coming to be considered as manifestations of auto-intoxication. There has been carried on in France a series of experiments showing the metabolic activity can be increased by giving, per oram or hypodermically, small amounts of enormously diluted solutions of the chloride of gold, it being claimed that one part in a million is sufficiently strong to, in some cases, double the amount of the excretion of uric acid in twenty-four hours. It may be truly said that the truths of homœopathy are being proven by its enemies."—*Progress*.

EDITORIAL

CEREBRO-SPINAL FEVER AND THE PUBLIC PRESS.

THE appearance of a number of cases of cerebro-spinal fever in Philadelphia and other cities has led to drastic quarantine and arbitrary methods by local boards of health, and scare headlines in the newspapers. If such action served to lead to better sanitation, and this only, we could have no reason for complaint. But the public is always hysterical. Notwithstanding the assurances of leading hygienists that the disease is feebly, if at all, contagious, the appearance of a case in a community strikes terror among its inhabitants. This terror is intensified by the action of health authorities in placarding houses, and enforcing a rigid quarantine on the residents thereof.

Progressive Medicine for March, 1907, contains the following resume of recent literature concerning the contagiousness of this disease:

"During this year this disease has continued to be the subject of much work and discussion, though, fortunately, the number of cases has shown a material decrease. One aspect of the disease, namely, its contagiousness, has been carefully considered, especially by the New York Board of Health. So far this disease, while characterized by the term epidemic, and well deserving this term, has furnished few proofs of being contagious, and the facts adduced by the New York Commission do not greatly strengthen the claim made by many that the disease is contagious.

"Boldvan and Goodwin published in December of last year the first part of a report by a Special Commission of the New York Department of Health to study epidemic meningitis. The report includes much interesting information on the history of this disease, collected from the literature, and closes with a report of the original work done.

"The clinical data upon which the study was based were limited to cases occurring two or more in one house during the period from January 1, 1905, to June 1, 1905.

"The bacteriological study, on the other hand, while including some of the same cases, embraces a much more extensive series, and includes also persons apparently well.

"During the six months there were 1,500 reported cases, 88 of which were multiple, but for lack of time only 58 of these were studied. These 58 instances included 144 cases, distributed as follows: 39 instances with 2 cases in a house; 15 with 3; 2 with 4; 1 with 5; 1 with 8.

"The intervals between the death or removal of the first case and the onset of the subsequent case or cases varied from one day to three months. The incubation period of meningitis is usually placed at four days; 34 cases are included in this group, only 9 of them appearing within 4 days after the removal of the first case.

"There were 18 instances in which the second case developed before the removal of the first.

"Certainly if the disease is contagious, it is far less so than such diseases as scarlet fever, measles and diphtheria. One could easily accumulate much stronger evidence of the same sort to prove that typhoid fever is contagious, and opinion is everywhere in accord that this latter disease is not contagious, contact with typhoid cases only multiplying to a small degree the chances for a direct transfer of the typhoid bacilli."

Just so far as cerebro-spinal is a filth disease, rigid inspection of neighborhoods is important. Indeed, health authorities should never permit neighborhoods to become so dirty as to lay them open to the charge of being unhygienic.

THE PENNSYLVANIA SINGLE BOARD BILL.

MEMBERS of the homœopathic school will doubtless rejoice over the defeat of the bill known as the Bowman bill, which provided for a single board of examiners, consisting of members from the different schools, instead of separate boards as at present. There can be no doubt that the passage of the Bowman bill would ere many years have elapsed, completely destroyed all homœopathic organizations, and caused our school to die of gradual decay; that it was intended to do so, all fair-minded people believe. The thanks of our profession are therefore due the President of the Homœopathic Medical State Society and our Committee on Legislation for their earnest efforts, which were crowned with such brilliant success. Incidentally, the present occasion illustrates the importance of all homœopathic physicians in the State of Pennsylvania becoming members of our State organization. They may

feel that they do not need it, because they never attend the meetings. Self-interest should teach all that the strength of organization increases with numbers. Moreover, as all physicians reap the benefits obtained by the efforts of the society, all should help to support it by becoming members thereof.

The selfishness backing the bill was well illustrated in a particular not even dreamed of by the majority of us, as will be understood by a perusal of the following quotation from the speech of Representative Stevens, himself an old-school physician:

"There are a great many who are opposed to this bill for various reasons—some of our own school; we have men who would be thrown out of business—be legislated out of office. We have seven members at the present time who are getting a good fee and have a valuable position. It will be impossible for more than five of the seven to have a position hereafter—probably not more than three or four—and I think it is asking a good deal of human nature to ask those men to step in and advocate dropping them from their honorable positions. Right in that connection I may say, on the merits of the bill rather than on the merits of the question before us, that it is hardly fair to ask the members to examine five or six hundred students a year and have all those papers looked over, to divide with those who examine only five or six or ten, as the case may be. The osteopath who comes in will probably not examine more than three or four that would be eligible for examination a year, and yet he gets just as much out of it as the other members of the committee, and he has, of course, just as much responsibility. But that is a small matter; that is a minor matter. But I think that the whole matter can be left fairly with the House and with the committee and with the Governor. I earnestly ask that this be allowed to pass in its present form."

It would seem from the above that the old-school board has been collecting from \$12,000 to \$15,000 annually in fees for examining the old-school candidates. This sum, divided among seven men, made a very nice little addition to their annual incomes. Now it was proposed under the Bowman bill that all members of the single board would have an equal amount of work to do, and yet Dr. Stevens makes the startling claim that because the old-school physicians outnumbered the homœopathists in the State by six to one, all of the fees paid by allopathic candidates should be divided among the allopathic members of the board. He admits that these might be reduced in number to three or four, and this would make

the amount of money received by each correspondingly greater. Self-interest of those fortunate enough to be appointed would demand that the number be reduced even further, and it is conceivable that with a single allopathic examiner, the income could be so princely that he need work only for two weeks in the year, the balance of the time being spent in resting from his arduous labors.

Although Dr. Stevens's remarks suggest that homœopaths were to have been examined only by the homœopathic members of the board, such was not the provision of the Bowman bill. The work would, had the bill passed, been so arranged that each member of the mixed board would have examined an equal number of applicants.

THE SIXTY-THIRD ANNUAL MEETING OF THE AMERICAN INSTITUTE OF HOMŒOPATHY.

It was a happy thought that led the members of the American Institute of Homœopathy to select the Jamestown Exposition as the place for their sixty-third annual meeting. To many of the members of the Institute the social side has come to be a very pleasant one, and by thus combining an opportunity for the acquirement of the latest advance in the medical sciences with interesting and enjoyable social features, the popularity of the Institute meetings has been established. This year the Institute has been especially fortunate in this respect. Of course, every one wants to go to the Jamestown Exposition. And, of course, every homœopathic physician, who has the welfare of his school at heart, wants to attend the American Institute of Homœopathy. The date which has been selected for the meeting of the Institute, June 17, is a most favorable time of the year to visit the Exposition. The climate of Norfolk at that time of the year is all that one could wish. For a period of ten years the United States gives an average summer temperature of 77.4 The humidity is not excessive and ocean breezes blow almost continuously.

In many respects the Jamestown Exposition will be unique in its character. Its naval and military features will be the most elaborate ever attempted. All the great nations have accepted President Roosevelt's invitation to send representa-

tives of their navies and this portion of the Exposition alone will be most interesting and spectacular. For the first time the United States has consented to permit armed companies of foreign troops to visit this country and the immensity of the great encampment which will be formed can be imagined when we realize that almost every foreign country will send one of its crack regiments and the United States Government will be represented by an entire division in addition to the companies of militia from the different States of the Union.

Among other interesting displays under the auspices of the United States Government will be a model postoffice, patent office exhibits, Federal prison exhibit, mineral, plant and fisheries exhibit, etc.

The hotel accommodations which have been provided for delegates to the Institute are ample and satisfactory.

Taken as a whole, the inducements which the Institute has to offer its members this year are most unusual. There is room for all and all tastes or fancies can be suited. The officers of the Institute have been laboring hard to make the scientific side of the meeting as complete and as interesting as the social side.

With all these attractions in view, we feel confident in predicting a banner year for the Institute gathering. Let every homœopathic physician come and swell the number and lend his influence in the upbuilding of this great national homœopathic medical association.

SPONTANEOUS HEMORRHAGE INTO THE ORBIT IN WOMEN.—Two cases are reported of spontaneous hematoma of the orbit, occurring in young women, without any previous trauma or morbid predisposition. The hematoma appeared in one case three days after the weaning of her child. It coincided in the other case with the sudden suppression of menstruation; and it recurred during nearly a year at each menstrual period.

He considers these hematomas as true compensatory hemorrhages. They are dependent upon vaso-motor troubles, of possibly toxic origin, and taking their point of departure from the genital or glandular system of the women.

The prognosis of these cases is often grave; and loss of vision is not rare. If the extravasation shows a tendency to cease and undergo spontaneous absorption, intervention is not so important; treatment for the relief of pain being the main essential. But otherwise energetic treatment may become necessary to check the hemorrhage, and especially to prevent the danger which result from pressure on the optic nerve.—*D. Brunetiere, Annals of Ophthalmology.*

GLEANINGS

OCULAR TROUBLES FROM OBSERVING AN ECLIPSE.—The writer sums up our knowledge of ocular injuries due to direct observation of the sun with the naked eye. These are chiefly impairment of vision and central scotoma. The amblyopia is a constant feature, although variable, at times slight, but often very marked. Generally it is transient; vision returning to normal in a few weeks or months; but occasionally it is permanent.

But, although the amblyopia may be very marked, the pupillary reflexes to light and accommodation are retained. The central scotoma is observed in all cases of injury to the eye from the solar rays; being always of the character of a positive scotoma, under the form of a dark spot more or less pronounced.

At twenty metres it is of sufficient size to hide the face of a person, and in reading to make the recognition of ordinary type difficult or even impossible. It is generally circular in form, with sharp borders, and an extent varying from 4° to 8° . Usually it appears as a fixed, immobile spot; but may show irregular oscillations, or a rotary motion—right to left, or left to right. Associated with the amblyopia may be meta morphopsia, or the ordinary form of *museæ volitantes*. The visual field is normal (unless exceptionally the color field may be slightly retracted), and the color sense is normal.

The visible changes may be a deepened coloration around the macula, or a slight pigmentation, making the yellow spot a little more pronounced, but the most frequent change is a minute hemorrhage exactly at the macula.

The prognosis, as seen above, is usually good; only an important prolonged exposure being likely to leave permanent effects. The therapy consists of anti-congestive treatment, instituted as soon as possible after the exposure; rest of eyes in a darkened room, dark glasses, etc. Later, on the torpor *retinæ* beginning to recover, the constant current is to be employed; together with the administration of strychnine.—*Dr. Villard, Annals of Ophthalmology.*

WILLIAM SPENCER, M. D.

ETIOLOGY OF DISEASES OF THE TEAR CHANNELS.—The various theories explaining the passage of tears through the lachrymal channels is discussed; ascribing it to a physiological condition; the theory of aspiration, by the vacuum produced in the nose by inspiration, or, according to Richet, by the action of the orbicular of the eyelids, which at each wink dilates the bag; or, as Foltz says, by the action of closing the eyelids, which produce a kind of passive systole in the tear sac, which, by its own elasticity, returns

to the diastole. He rejects these theories, and noting the anatomy of the tear channels, the rapid widening of the bore of the canaliculi at the base of the sac and the general direction of the channels, he concludes that capillary attraction is the only force that drives the tears through their excretory ducts. He founds his theory on the following experiment: A capillary tube, one of whose ends is amply widened, rapidly and while the other is immersed in a liquid, require no biological force to absorb the liquid; the physical force, called adhesion and which produces the phenomena of capillary attraction, is sufficient. He shows some glass tubes, similar in shape to tear ducts, by means of which he demonstrates the actual passage of a liquid through them by capillary attraction alone. He then studies the etiology of diseases of the tear channels, which he ascribes to causes that destroy capillary action, or oppose the free passage of the liquid through the excretory canal.—*Dr. E. F. Montaud, Annals of Ophthalmology.*

WILLIAM SPENCER, M. D.

CHRY SOPHANIC ACID IN SKIN DISEASES.—C. F. Fox recommends the following preparation of chrysophanic acid in psoriasis, eczema, herpes circinatus and sycosis. Acid chrysophanic, ten parts, acid salicylic ten parts, ether, fifteen parts, and collodion, sixty parts. Daily applications are made until the patches disappear and smooth skin results. It is contraindicated where the skin is highly congested and irritable. It causes discoloration of the hair.

RALPH BERNSTEIN, M. D.

IODIN IN SKIN DISEASES.—Kinnaman recommends the following one per cent. watery solution of iodine wherever a parasiticide or an antiseptic is needed. Iod. crystallin. 2.5 grammes, Natr. iodid. 3.5 grammes, Aqua destil. 250 c. c. Kinnamann contends that this solution has a very great antimicrobial power, and that it penetrates deeply into the skin. It is applied with absorbent cotton or a tooth pick, making the applications from one to three times daily. It has been found to give good results in erysipelas; a one to two hundred solution being used, which was applied as a compress, twice daily, being allowed to remain for a half hour at a time. In cases of tinea sycosis, tinea tonsurans, and favus, the one per cent. solution was used until localized dermatitis resulted, a mild mercurial ointment was then substituted. In varicose and specific ulcers, one to two hundred iodine solutions were used by means of compresses every second night, being applied for fifteen minutes, and followed with dry gauze dressings.

RALPH BERNSTEIN, M. D.

CHROMIC ACID IN SKIN DISEASES.—A twenty per cent. solution is of service in syphilitic glossitis with marked fissures, application is made twice weekly. In syphilitic vegetations, application of pure chromic acid causes prompt shrivelling and disappearance. In bromidrosis a four per cent. crystallized chromic acid solution applied with absorbent cotton, moistening the entire affected surface, causes the immediate disappearance of the fetid odor. The applications are at first repeated every day, then every other day, and finally twice weekly. Applications should never be made

more than once a day, and should always be applied with greatest care, and without excess.—Sabouraud, *La Clinique*.

RALPH BERNSTEIN, M. D.

ABNORMAL INVOLUTION OF THE MAMMARY GLAND WITH ITS TREATMENT BY OPERATION.—Abnormal involution of the mammary gland is divided by Warren into (1) a cystic group, (2) a proliferative group, the latter containing (a) an acinal, (b) a papillary, (c) an adenomatous variety. Most of these cases are benign, but an analysis of a large number show 15 per cent. to be malignant. The condition is usually met between 40 and 45 years, both breasts may be involved, and the axillary glands are sometimes enlarged. When such a cystic condition is present the question of treatment is important. Spontaneous cure may result, accidental rupture may lead to its disappearance, or it may sometimes be relieved by aspiration. The objections to amputation are the resulting disfigurement, and the undesirability of a severe operation for a benign condition. The author advises an incision along the outer border of the breast through which the gland can be everted, and the cystic structure resected. If careful examination reveals the presence of cancer the breast may then be treated radically.—*American Journal of the Medical Sciences*, April, 1907.

J. D. ELLIOTT, M. D.

SPHINCTERIC CONTROL OF THE MALE BLADDER AND ITS RELATIONS TO PROSTATECTOMY.—Ball concludes that in order to prove positively that the internal sphincter vesicæ in man is the important muscle, one must compare different forms of surgical interference in this region, especially with young persons in whom enlarged prostate can be excluded. With enlarged prostate the action of the internal sphincter is often greatly disturbed, and such interference may often explain inability to retain the urine when there is sudden desire to urinate. In such cases the compressor urethræ muscle develops increased activity to counteract this symptom. After prostatectomy has been performed, the control of micturition is usually abnormal at first, but soon becomes normal, probably on account of the compensatory powers of the compressor urethræ muscle. It remains to be determined whether the internal sphincter can act after supra pubic prostatectomy, and this should be ascertained by autopsies on those who have survived prostatectomy several years. It is considered incorrect to argue from operations on patients with enlarged prostate that the chief sphincter of the bladder is normally in the membranous urethra.—*The Practitioner*, March, 1907.

J. D. ELLIOTT, M. D.

THE SURGICAL ASPECTS OF GASTRIC CARCINOMA.—Deaver states that 25 to 40% of all primary cancers are gastric and that only surgical measures have been efficient in curing any form of cancer. His conclusions are: 1. By timely operation for the various causes of persistent indigestion many patients will be saved from developing gastric carcinoma. 2. Early diagnosis of gastric carcinoma being so difficult and radical removal being of good prognosis only in cases in which an early diagnosis has been made,

partial gastrectomy should be limited to malignant disease, should be operated on for symptoms of pyloric obstruction or other supposedly benign condition in which cancer, though suspected, cannot be diagnosed with accuracy prior to operation. 3. In moderately advanced gastric carcinoma gastero-enterostomy should be preferred to partial gastrectomy. 4. If the indication is the prevention of starvation jejunostomy should be performed.—*American Journal of the Medical Sciences*, April, 1907.

J. D. ELLIOTT, M. D.

TUMORS OF THE LACHRYMAL SAC.—The author who has had extensive experience in ablation of the lachrymal sac for rebellious dacryo-cystitis, reports three cases of non-ulcerating "cancer" of the sac. Two of these were primary, the other secondary.

In the first two cases one appeared to be in the presence of a simple lachrymal tumor, and only after the removal of the sac and cutting it open was the neoplasm revealed. The union and healing in both was prompt. The first case was 65 years old; the growth was diagnosed as a "epithelioma atypique." The second case was 61; the growth was diagnosed as a "polype sacromateux." Neither of these cases had been treated by probing, and the accompanying dacryo-cystitis was secondary and not initiatory. The diagnosis of these practically latent growths is in the early stages extremely difficult; and the possibility should always be kept in mind in any lachrymal sac tumor in an aged person. Fortunately they are rare, Lagrange having found reports of but four cases of sarcoma and two of epithelioma. But the author alone having seen three cases seems to indicate that they may be more frequent than the published reports would indicate, and have been overlooked.

In the third case there was a small dark tumor, well defined. Extirpation and prompt healing. This was found to be an alveolar melanotic sarcoma. The eyeball had been enucleated a few months before, for a melano sarcoma of the choroid. There was also melanosis of the nasal fossa, so that the growth had developed, in a sense, in continuity. He removes the sac whole, and strongly advocates the early radical operation.—*Dr. Rollet, Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

INVERSION OF THE UTERUS.—Holzapfel reports a case which had occurred twenty-four hours prior to his seeing the patient. Ergot had been repeatedly administered for hemorrhage. The patient was successfully treated in anæsthesia by dilating the contraction ring through the flaccid abdominal walls. Then the fist of an assistant having been placed upon the abdominal walls for the purpose of making counterpressure upon the fundus, the operator with one hand inverted the loose abdominal walls through the contraction ring and at the same time everted the anterior vaginal wall. With the other hand the operator was then able to press successive portions of the inverted uterus upward and return them into place until all had been replaced. Unfortunately the patient died on the fifth day. Although reinverting the uterus in recent cases may possibly not be difficult, it becomes more so the older the case is. The difficulty, of course, arises from the contraction of the cervix. The ultimate result in such cases is problematic. Some of these patients die from hemorrhage

and others from infection. Of the cause of puerperal inversion, the author says so much is certain, that there must be a relaxation of the uterus in addition to some force, either in the nature of pressure or traction, which invaginates the fundus. It is rather remarkable that this accident preferably occurs in primiparæ, for relaxation of the uterus is more often found in multiparæ. That this accident is not likely to recur seems probable from the rare reports of cases of repeated inversion. As regards the force inducing the inversion, the author is of the opinion that the view formerly held is false, that all cases are caused by force externally applied. He believes that other factors are active, the most important of which is atony of the uterus. He consequently believes that the early treatment of uterine atony is of the utmost importance in preventing inversion.—*Zentralbl. f. Gyn.*, 1906, 1393.

THEODORE J. GRAMM, M. D.

MASTITIS.—For the purpose of preventing mastitis by inhibiting infection through the nipple, especially from erosions and fissures in this region, Doderlein proposes to disinfect the nipple and the neighboring skin and then to apply a solution of india rubber in benzine containing one per cent of formalin. Before the application is made, dry talc or flour may be dusted on to make the surface more smooth. This will remain intact as long as the parts do not sweat, and may then be reapplied. The nursing of the child is sufficient to break through the thin film of tissue over the orifices of the milk ducts.—*Zentralbl. f. Gyn.*, 1906, 1345.

THEODORE J. GRAMM, M. D.

BLOOD EXAMINATIONS IN PUERPERAL FEVER.—Kownatzki (Berlin) says that the examination of the blood may be used for prognostic purposes in puerperal fever. The prognosis is favorable when the neutrophiles are not much changed and when the eosinophiles are present. When such is not the case, and when the leucocytosis amounts to 50,000 and the number of red corpuscles is diminished, the prognosis is unfavorable. The case is fatal when serious degenerations are seen, such as poikilocytosis combined with polychromasie and nucleation of the red blood cells.—*Beitrag z. Geb u. Gyn.* Vol. X, 275.

THEODORE J. GRAMM, M. D.

POST-OPERATIVE ILEUS.—Baisch says that the most reliable diagnostic signs are a disproportion between pulse and temperature and the good quality of the pulse in spite of its frequency, in addition, of course, to the usual mechanical results of the bowel obstruction. In regard to the causes of the formation of adhesions the fact attracts attention that 72% of his sixteen re-operated cases had already shown adhesions of the pelvic organs and bowels at the time of the first operation. Baisch then carried out some experiments and found that when the peritoneal cavity had been entirely freed from blood, no bowel adhesions formed, irrespective of whether the serosa had been loosened over large areas or had been injured by the cautery. The author says that it seemed that even rather extensive injuries of the surface of the bowel were immaterial for the formation of adhesions; burned areas are also needlessly feared, for the most important role in the etiology of intestinal adhesions is played by the presence of blood. The main point therefore is the most painstaking and exact con-

trol of the hemorrhage. In order to effect early bowel movements he gives castor oil a few hours before the laparotomy. If on the evening of the third day there has been no stool or flatus expelled, and if vomiting and meteorism arise, all nourishment and fluids are withheld per os; but he gives subcutaneous salt infusions, high enemata, or washing out of the stomach with subsequent administration of castor oil. If the pulse becomes more rapid and smaller, the case must be operated. If ileus arise after vaginal operations, the vaginal wound may be carefully examined for adhesions and the latter loosened, otherwise the abdomen must be opened. The adhesions are usually situated at the stump or at the peritoneal suture of the anterior abdominal wall. Baisch recommends to empty the bowels with a moderately large trochar, and then to suture the opening. Of sixteen re-operated cases, thirteen recovered.—*Abs. Zentralbl. f. Gyn.*, 1906, 1207.

THEODORE J. GRAMM, M. D.

A TYPICAL CASE OF CHORIO-EPITHELIOMA MALIGNUM.—Cyzewicz and Nowicki have reported a case which admirably portrays the typical course of this disease. The patient, aged 27 years, had aborted four months previously and since then had bled constantly. The uterus was found enlarged to the size of a fist, doughy and not sensitive. The internal os was closed. Right ovary somewhat enlarged. The curette removed fragments of soft tissue, which on microscopic examination suggested the disease in question. The hemorrhage continued after this and a succeeding curettement. In consequence, it was determined to remove the uterus, but before this procedure could be carried out a serious internal hemorrhage occurred which necessitated immediate laparotomy. The hemorrhage was found to have proceeded from a ragged perforation in the enlarged ovary. Because of the bad condition of the patient the ovary alone was removed. The patient then became sick from croupous pneumonia. After recovery the uterus was extirpated. The patient recovered from the operation, but soon hemoptosis set in and one month later the patient died. The autopsy showed a dissemination of chorio-epithelioma throughout the entire body. From this case the authors suggest that the microscopic diagnosis may present unsurmountable difficulties, and hence we should not wait until such can be established, but we should place much reliance upon the clinical signs. Among their conclusions they suggest that the metastases may grow so rapidly that internal hemorrhages may be occasioned. An intrauterine tumor if covered by a smooth surface, may elude the curette.—*Monatsschr. f. Geb. u. Gyn.* Vol. XXIV, 456.

THEODORE J. GRAMM, M. D.

A CASE OF PROCIDENTIA UTERI IN A SIXTEEN YEAR OLD GIRL is reported by Sutter (St. Gall). This unusual case occurred in a patient who was engaged in laborious work. She was anæmic and emaciated. The entire vagina was also prolapsed. The case was treated by operation, plastic in character, but the latter had to be repeated because of recurrence of the condition. Such cases are quite rare. The author believes that in this instance the cause is discoverable in the excessive exertion, the weak general constitution, and the infantile condition of the genitalia.—*Monatssch. f. Geb. u. Gyn.* Vol. XXIV, 474.

THEODORE J. GRAMM, M. D.

EXPERIMENTAL ARTERIAL DEGENERATION.—Under this heading, J. L. Miller discusses the various agents capable of producing vascular degenerations in experimental work and, through his investigations, adds to the list two new substances, physostigmin and barium chloride. The studies in the first are incomplete. The changes produced by barium chloride, Miller thinks of some importance, inasmuch as they suggest involvement of the intima instead of the usual medial lesion found after adrenalin injections.

Of the various drugs giving rise to arterial degeneration, the best known by virtue of its more marked and constant action is adrenalin. Intravenous injections of rabbits with this substance systematically cause arterio-sclerotic lesions in the aortæ of these animals. Two important problems arise in such investigations, the mode of action of the drug and the relation of the lesions to arterio-sclerosis in man. Miller discusses both of these. Of the theories claimed for suprarenal action, those of increased blood pressure and toxic influence have the most advocates. Various experiments by different authorities have been pursued, principally those employing substances to inhibit the increased pressure and allow the single action of the toxic agent. The results are inconclusive and the question still remains unsettled.

The interesting feature of the relation of the lesions of adrenalin to arterio-sclerosis in man is briefly referred to by Miller. A rather full discussion of the subject is found in an article by Klotz, (*Journ. Experimental Med.*, Vol. 8, p. 504). He points out the sequence of events in adrenalin sclerosis, the principal or sole involvement of the media beginning with fatty degeneration of the muscle cells and later of the elastica, followed by the deposit of lime salts. This type of arterio-sclerosis with calcified media is imitated in man in only one form, that known as Moenkeberg's type of arterio-sclerosis, in which the peripheral vessels, the so-called vessels of the muscular type are involved. So even these forms are not identical for adrenalin affects the aorta which is a vessel of the elastic type. The radials in such cases are referred to by the clinician as "pipe stems" or "beaded like a trachea." Moenkeberg's sclerosis attacks the media only and the sequence of events is probably the same as in the like type of experimental sclerosis.

The intimal type of arterio-sclerosis has not been definitely or conclusively produced in experimental lines. But investigations are many and the subject is one of such practical interest in pointing out by analogy the causative features in human sclerosis that the results are looked for with interest.—*Am. Journ. Med. Sci.*, April, 1907.

S. W. SAPPINGTON, M. D.

THE USE OF TRYPSIN IN THE TREATMENT OF CANCER.—W. J. Morton has made use of injections of trypsin as suggested by Beard, of Edinburgh, in thirty consecutive cases of cancer. He sums up his conclusions as follows:

1. Two of them, severe cases of face cancer, are cured to date by the use of trypsin.

2. A remarkable process of retrogression by degeneration and atrophy of a carcinomatous breast gland to final and curative obliteration has been microscopically demonstrated.

3. *In all cases, signs of amelioration in the progress of the disease have been observed.*

4. Four cases, among others, demonstrate beyond question that trypsin may produce local reaction in a cancerous tumor indicated by swelling, heat, pain, or increased discharge.

5. Five cases, as well as others not especially recorded among the hospital cases, demonstrate that trypsin produces constitutional reaction characterized by rigors, fever, pain in the back, sense of weakness, drowsiness, etc., but of temporary duration.

6. Two cases demonstrate that enlarged glands associated with cancer have rapidly diminished in size under the influence of trypsin.

7. It has already been pointed out that these cases were mostly absolutely hopeless at the time of beginning of treatment.

8. Rigors and increased temperature following within a few hours the injection of trypsin are an encouraging sign, since they indicate that the cancer has been attacked by the trypsin. The symptoms are due to the toxic action of absorbed and destroyed cancer products.

9. Trypsin has a decided effect in reducing cancer cachexia and in improving the general health.

10. The result of the trypsin treatment in many instances demonstrates that even in severe cases of cancer of the uterus involving the associated pelvic organs the disease may be brought to a halt, so to speak, even if the patients do not eventually recover.

11. The use of trypsin has caused hæmorrhages to cease and has alleviated pain.

12. It is a fact that patients frequently refer their greatest feeling of improvement to the period of time when they are taking amylopsin following trypsin. An important, as well as a difficult feature of the treatment, therefore, is reasonably to determine the proper time to administer the diastatic ferment as well as the requisite amount, following or during the use of trypsin. It has seemed to me that the pure diastase (injectio amylopsin) has much to do with favorable results.

13. Weighing carefully the cases, I have come to the conclusion that trypsin, if possible, should be used in larger doses than I have yet used it in most of them. Feeling one's way, for instance, from 20 to 30 minims daily for from four to six weeks, as advised by Dr. Beard, and then resorting to amylopsin. It is only lately (November 23) that I have been able to get a microscopical report of the actual effect of trypsin upon a cancerous tumor. This report has lent another aspect to the work and encourages me as it will others.

14. In all fairness trypsin deserves further trial, but I reserve an opinion as to its actual therapeutic value until I can speak from a larger experience.

DIFFERENTIAL DIAGNOSIS OF DUODENAL ULCER AND GALL-STONE DISEASE.
—In cholecystitis the pain is sudden and severe, usually has a wide field of radiation, comes with no regularity as to time, is rarely caused by food and as rarely eased by it, nor does the patient often trace his distress to it. There is no stomach history between the short, sharp attacks; spasm of the diaphragm with dyspnoea is common, vomiting and gas, if present, are

so only during the colic, and the relief from eructation and vomiting is not so marked as in ulcer. Nausea and intense retching may be followed by vomiting of a small amount of thin, yellowish, bitter liquid mixed with mucus.

In duodenal ulcer pain comes in periods of attack lasting for days or weeks, is often sudden, may be severe, yet usually not that intense type of pain met in gall-stones, but rather gnawing and burning in character. It may be irregular as to time of the separate attacks, but regular during the period of the stomach disturbance. The pain is clearly related to food, the intensity often modified by kind and quantity taken. Food eases for a time, the pain returning from two to four hours later. Hot drinks, soda, and irrigation give relief. Spasm of diaphragm is rarely seen except in some cases of perforation.

The chronic gall-stone case, with impacted stone, ulceration, and adhesions, in which no jaundice appears and the stomach symptoms, as gas, vomiting, burning distress, sour eructation, impaired appetite, and dilatation, predominate, and the pain is moderate and follows food, will too often be diagnosed as ulcer; while the duodenal case, in whose early history only irregular attacks of sudden, sharp, intense pain of peritonitis or acute spasm (and with no obstruction or hyperacidity) can be elicited, and there is no gas, vomiting or sour eructations will be as surely mistaken for gall-stones.—*The Monthly Encyclopædia of Practical Medicine*, March, 1907.

ETHYL CHLORIDE IN ORAL SURGERY.—Dr. R. C. Brewster is a strong advocate of the use of ethyl chloride in oral surgery. The technique consists, first, in placing a napkin around the affected tooth in such a way as to prevent the ethyl chloride from getting into the throat; second, by using the saliva ejector the mouth is kept dry.

Or, a rubber napkin, i. e., rubber dam, may be used, and made to cover several adjacent teeth as well as the face, nostrils and fauces. By this means, the patient can be protected from the fumes if they be offensive to him, and any depressed portion of the dam will collect the ethyl chloride, which can be removed by the saliva ejector.

Sufficient rubber is cut away to expose the affected tooth and adjacent gum. When thus exposed by cloth or rubber napkin, the ethyl chloride is thrown from a fine pointed glass tube first on the adjacent gums and teeth, and then directly into the cavity, repeating the circle many, many times. The length of time this shall be continued is a matter of experience and judgment, but do not continue it on the gum after it has become white or frozen, but rather directly into the cavity.

The freezing of the gum, because of its close proximity to the pericementum, is a criterion indicating that the limit of its usefulness has been reached, and further application must be made directly into the cavity, which need be but for a second or two. After this the cavity can be excavated and drilled with the dental engine without producing pain.

The fumes of ether, when allowed to be inhaled, will do much to promote the success of the operation; in fact, I frequently use ethyl chloride for the extraction of loose roots and teeth, lancing the gums, opening an abscess, removing a sequestrum of bone, or for the removal of slight necrosis.—*Long Island Medical Journal*, February, 1907.

A CASE OF ACUTE PHOSPHORUS INTOXICATION WITH CEREBRAL HAEMORRHAGE.—Rotky, *Prager Med. Wchschrft*, No. 17, 1906. The case observed by the author affords another and very striking illustration of the deleterious effect of phosphorus upon the vascular walls. Very severe pathological alterations of the vessels developed within a few days following the intoxication, so as to permit the occurrence of cerebral hæmorrhage. The patient was a young man, 18 years of age, who had taken phosphorus (scraped off from matches) in an attempt at suicide. His stomach was washed out, and he was admitted to the hospital at the end of a few hours. He complained of stomach ache and nausea. There were no objective symptoms of intoxication. The stomach was flushed out again, and the presence of phosphorus was demonstrated in the returning fluid. On the next following day the patient manifested a marked euphoria. Examination showed swollen and reddened tonsils, also swelling and congestion of the uvula and the soft palate, with bronchial bruits over the lungs; a pulse of 96, and an amount of urine of 350 ccm. On the fourth day following the introduction of the poison the patient was semi-comatose. The pupils were contracted and reacted very sluggishly; the bulbi were deviated towards the right. There was facial paralysis, occasional twitching of the right arm, opisthotonus, Cheyne-Stokes breathing, general cyanosis, moderate icteric discoloration of the conjunctivæ. The liver was enlarged, and its lower margin palpable. Traces of albumin were found in the urine. Death occurred in the course of the same day. The diagnosis of cerebral hæmorrhage, which had been rendered during the lifetime of the patient, was confirmed by the autopsy.—*Medical Review of Reviews*, January 25, 1906.

TREATMENT OF THE TYPHOID SPINE.—After reviewing the opinions of various authors as to the nature of typhoid spine, Gibney states that he has had fairly good results in its treatment by resorting to fixation of the spinal column, the avoidance of trauma, the free use of the Paquelin cautery, and the subsequent employment of well directed massage and graded exercises.

The value of the cautery as a counter-irritant has proven so valuable in his hands that he feels justified in recommending it above all other counter-irritants. The plaster of Paris jacket or corset has not proved so valuable as the simple Knight spinal brace or the posterior spinal assistant of Taylor. The criss-cross strapping with zinc oxide plaster has been a valuable adjunct, especially in the milder forms of this disease. Potassium iodide has been given in certain cases, but not with any definite results. Where deformity exists as it undoubtedly does in certain instances, it is necessary to wear apparatus for longer periods. In view of a destructive process going on in the bodies of the vertebræ, the remarks made by McCrea in his conclusions, namely the similarity of the process to that in arthritis deformans are quite suggestive, and it may be well to call attention to the value of immobilization in cases of arthritis deformans rather than the methods so commonly employed of massage, shampooing, electricity, etc.—*N. Y. Medical Journal*, April 20, 1907.

MENINGISM AS DISTINGUISHED FROM MENINGITIS.—Dr. Chevalier Jackson, of Pittsburg, after reviewing this subject from his own experience, tabulates the following conclusions:

1. Without lesions of the meninges there may be a syndrome comprising many of the diagnostic symptoms of meningitis. Before recovery such cases are often indistinguishable from meningitis.

2. The term meningism, is on the whole, the least objectionable that has yet been applied to this syndrome.

3. Nosologic independence of the condition will stimulate research.

4. According to etiology, these cases may be classified as either reflex, toxæmic or irritative.

5. In all three classes, there are circulatory changes, and in many cases direct action on the cortical and subcortical cells. In the toxæmic cases, the nosotoxins circulating in the blood act as toxic doses of cerebral poisonous drugs do.

6. As otologists we have mostly to do with irritative and toxæmic cases. When any of these forms occur accidentally in a case with middle ear disease, correct diagnosis becomes of the utmost importance.

7. Any meningitic symptoms may occur, but the erethistic are more frequent than the depressive. The full development of pressure symptoms or paralysis will usually exclude meningism.

8. The readiness with which the symptoms of meningism may be quieted by small doses of morphia is a valuable diagnostic point.

9. These cases of meningism are distinct from Quincke's serous meningitis in that there is no serous trouble.

10. In the course of middle-ear disease, the symptoms of meningism often demand radical operation for cure, even if the mastoid be yet uninvolved.—*Journal of the American Medical Association*, March 30, 1906.

BIOLOGY. PATHOGENESIS OF RABIES.—According to Remlinger, the virus of rabies accidentally or experimentally deposited upon a part of the body is sometimes destroyed, whether at this very part, or in its ascending course along the peripheric nerves. It invades the nervous centres oftener than we think and more rapidly than it is admitted. The treatment should be directed to arrest its ascending course or to neutralize it at the very centres. If the treatment is inefficacious, the virus may remain in a latent state in the brain for months and even years, and can be brought at once into activity by various influences, such as traumatism, emotions, colds, &c. It will then be, as admitted by Pierret, a true form of infection madness, which may elucidate the pathogenesis of other cerebral states of the same order.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

THE TONGUE.—Here are a few tongue symptoms, chiefly objective, which may be considered leaders in a way, though some are not sufficiently peculiar to guide to the remedy. The homœopathic prescription cannot be made on lesions alone. No scientific homœopathist could prescribe *Lycopodium* for "Vesicles on the tongue" *per se*.

Belladonna.—Tongue and palate dark, red and dry. Dryness of mouth, tongue and throat, interferes with speech and deglutition.

Chelidonium.—Tongue thickly coated yellow.

Crotalus hor.—Swelling and inflammation of the tongue. (Lach.)

Gelsemium.—Numbness of the tongue; feels so thick he can hardly speak; tongue red, raw and painful. Partial paralysis of the glottis and tongue.

Graphites.—Burning blisters on the lower side and tip of the tongue.

Kali bi.—Tongue smooth red and cracked. (Canth.)

Leptandra.—Tongue coated yellow along the center, with pain in the submaxillary glands.

Lycopodium.—Vesicles on the tongue.

Menispermum.—Tongue much swollen.

Mercurius viv.—Tongue red and swollen; swollen coated white moist, with intense thirst; swollen, flabby, showing impress of teeth on margin; movements difficult; speech difficult; stammering.

Mercurius prot.—Base of tongue covered with a thick, dirty yellow coating.

Nitric ac.—Blisters and ulcers on the tongue; and on margins, with burning pain when touched.

Phosphoric ac.—Bites side of tongue involuntarily; slow at night.

Phytolacca.—Great pain in root of tongue when swallowing.

Podophyllum.—Tongue full and broad, with a pasty coat in the center.

Polyporus.—Tongue coated white or yellow.

Pulsatilla.—Tongue dry, covered with a tenacious mucus.

Rhus tox.—Tongue red, dry and cracked. Sore sensation of tongue, with red tip.

Rhus ven.—Scalded feeling of the tongue, salty, flat, rough taste. The center and base coated white, the sides are very red. Vesicles on the under side of the tongue with a scalded feeling.

Santonine.—Tongue deep red, without coating.

Sulphur iod.—Tongue dry and hard, furred at the root, red at the point.

Taraxacum.—Tongue covered with a white coating, which peels off in patches, leaving dark, red, tender, very sensitive spots.

Thuja.—Tip of tongue painfully sore to the touch.

Veratrum vir.—Tongue feels as if it had been scalded.—*Hom. E. E. and T. Journal.*

AURUM.—Mrs. E. D., age 81. Came to me March 20th, 1906, with following history:

Her husband had died suddenly, January, 1906; has been brooding over it ever since. Sad, tearful, restless, sleepless, moaning, sighing; great sorrow and grief; oppression of chest in heart region, aggravated by grief and motion. The stethoscope reveals aortic regurgitation. Lower legs slightly œdematous. Sanguine temperament; very active and lively before—now despondent and indifferent to surroundings. *R.*, Ignatia, 1m.

March 24th.—Oppression of the chest same as before; speaks of death; would like to be with her husband; gloominess of mind. *R.*, Aurum, 50m.

Within a week after taking aurum patient's mind became more "sensible and reasonable;" oppression of chest vanished and œdema also. Patient is still well and can walk as well as any woman forty years old. Here we see the relation between ignatia and aurum; the latter is complementary of the former. Still ignatia was not the "case remedy." The "unphilosophical mind" of ignatia is not like that of aurum. Will the "Virchow Homœopath" tell us if the remedy and the dose were in conformity with the "cellular" derangement in the case? And what "pathological changes" were there present in her brain cells to cause her to be "temporarily insane?" And, how much "gold" is to be found in one dose of aurum, 50m.? —R. Del. Mas. M. D., in *The Clinic*.

CALCAREA CARBONICA.—M. L., aged 15, came to me June 25th, 1906, with the following history:

The lad had brain fever when a child two or three years old, and had received allopathic dosing therefor; has been constipated ever since. Chorea, twitches for over a year; spasms begin in the neck and extend to right arm, turning face toward right. Heat does not agree with him, sweats very easily. Sleepy after dinner; waking mornings; as tired on waking mornings as on going to bed. Aversion to fats, buttermilk and milk; desire for sweets, and especially hard boiled eggs. Masturbation. *R.*, Calcarea carbonica, c. m.

July 10th, 1906. The boy reports "it stopped right out." *R.*, sac. lac.

July 19, 1906. Slight twitches have returned, noticed while eating. *R.*, Calcarea carbonica, c. m.

July 26, 1906. Twitching gone; feels sleepy or sleeps readily; constipation gone; masturbation gone. (No desire for it any more, he says.)

The lad was discharged on September 3d, 1906. Symptoms of chorea, craving for masturbation and constipation have not returned to this date. This case illustrates the necessity of prescribing for the patient and not for the disease. The "naughty habit" is not moral obliquity, but perverted stimulus in the higher centers instead, and when we materially see that the similar remedy can implant or restore morality in a human being, one can but guess at what the preacher and legislator would obtain were they

Hahnemannians. From a homœopathic standpoint morals and health hinge upon the vibrations of the cerebrospinal axis; any departure from the normal in said axis is the cause of weakness and disease. Therefore, the criminal should not be killed, but cured instead, and since the cell is not responsible for the disorder in the principle back of it that sets it (the cell) into activity (pathological) one should aim at the employer and not the employe to re-establish a normal (physiological) traffic along the lines "congested, deficient, impaired or wrecked."—R. Del Mas, in *The Clinique*.

A PROVING OF BELLADONNA 3X.—The following interesting case of belladonna poisoning resulted from the administration of seven tablets of the third decimal potency of the drug: The patient, a young man about 24 years of age, employed the remedy as a prophylactic against scarlet fever.

Two doses were taken, the first consisting of four tablets, about 3 p. m., the second following the patient's supper, about three hours later. He soon complained of a sensation as though the eyes protruded from their sockets; the pupils became dilated, followed by progressive dimness of vision, great effort of accommodation being required to see distinctly, a title page printed in three-eighths inch type could scarcely be distinguished at arm's length. Mouth, tongue and throat became dry and swallowing difficult; the voice was husky and hearing somewhat disordered. There was frequent desire to urinate but every effort was promptly checked by the clutching of the sphincter. Jerking of the extremities and staggering, unsteady gait followed. At this stage an old school physician was called who promptly administered a hypodermic of apomorphia which resulted in slight vomiting.

The patient now complained of the lights flying about the room and remarked that the bucket into which he had vomited seemed to fill with soap bubbles reflecting the colors of the rainbow. He described a net-work of bright red threads about the room and complained of seeing red spiders running over the floor. There was a throbbing sensation over the whole body. The slightest touch, such as taking the pulse, brought on a trembling of the body, but the firm grasp of the physician in administering the hypodermic, did not seem to aggravate. The patient frequently lapsed into slumber from which he awoke with a sudden start. Pulse 40, temperature 99.4° F.

On the following day the symptoms abated somewhat and urine was passed at frequent intervals. Analysis demonstrated the presence of bile. Jaundice set in, accompanied by a slight rash over the greater part of the body. Pulse 58, temperature almost normal.

The patient continued to improve during the next 36 hours, at the end of which time no trace of the disturbance was left save a slight reddening of the skin and some bile in the urine.—A. E. I., *Cleveland M. and S. Reporter*.

WHEN SHOULD THE REMEDY BE CHANGED?—B. L'B. Baylies, M. D., Brooklyn, N. Y. The remedy having been selected homœopathically, and the dose as nearly as possible adjusted to the sensibility and susceptibility of the patient, possibly to the activity of the morbid state, it should not be changed while the symptoms which first demanded its prescription continue. A change of the remedy would imply either that the medicine

administered had not been well selected, was non-homœopathic—a condition which will rarely occur to the careful and studious physician—or, that it having been chosen in strictly homœopathic relation to the case, the original symptoms had changed.

Neither should the remedy be changed while the possible series of apparent aggravations or vital commotions produced by it continue.

These will be recognized as aggravations by the remedy when they present a striking development of its similar symptoms, to which may be super-added other symptoms of the remedy not extant in the case, a picture of its characteristics more fully developed. When such a manifestation occurs the remedy should not be changed, or even repeated, for its undisturbed action will be followed by proportionately greater elimination of the morbid phenomena, and progressive though somewhat fluctuating improvement.

This is illustrated in the fluctuating or undulatory progress towards recovery, which the homœopathic remedy effects in the intermitting neu-roses and fevers, the paroxysms of which successively exhibit its influence in greater and still greater elimination of the corresponding symptoms, and this operation may continue until the original symptoms, of the disease have ceased, and the repose, or vigorous mobility of health has supervened.—*The Medical Advance.*

STUDY ABROAD.—E. Welles Kellogg, M. D. . . . Before closing I should like to offer my reasons for the causation of the following questions: Why do the medical authorities of Europe, especially Germany and Austria, consider the American colleges and their graduates beneath their standards? Why do the same authorities hate the Americans personally, but praise them to have them enter their clinics and then rob them? Because the majority of the physicians who have been and are now going abroad for study are not the true representative physicians or surgeons of this country, but are generally students; by that I mean the younger graduates; nevertheless, they are classed as our representatives, and when their ignorance is shown it is put upon the whole American brotherhood and we get the blame for their faults and mistakes, even then, perhaps, through no fault of theirs. However, I am thankful to say that our men, such as they are, are head over heels in every respect, morally, mentally and physically above the German and Austrian graduates whom they meet in the different clinics.

Also many of our men accustomed to seeing clean work, upon seeing the sloppy work over there, become disgusted and leave the clinics, while others forgetting themselves, may tell the physician or surgeon in charge that he doesn't know how to operate, as one did last winter in Berlin; needless to say Americans were barred for some time from that clinic from then on. Consequently, when over there a man must act on his dignity, especially in a clinic, or we are all put down, individually and collectively, as a race of fools, and they immediately begin to get busy to separate us from our money, and I am sorry to say that lots of our men have proved easy marks in that respect.

I court discussion upon the conclusion of this article, namely, taken as a whole, the study of medicine abroad is not beneficial, that the time

and money are put to a better use in our own country, and as a support of this stand I rely upon these facts: The betterment of our medical colleges, the decrease of physicians who now go abroad to study, and the statements of several prominent authorities who have visited in our country; that in ten years all Europe will have to come to America to learn medicine.—*Phi Alpha Gamma Quarterly*.

IN POST-PARTUM HAEMORRHAGE then, remove all removable causes, select the similar remedy as carefully as is consistent with the circumstances. If the result is satisfactory, well. If not, give a hypodermic injection of thirty minims of the fluid extract of ergot, and repeat if necessary.

I advocate doing this rather than giving ergot at once, because I believe the patient will be better off if the ergot is not used, and that thereby we learn to be better prescribers and gain confidence in our ability as such.

So far as obstetrics is concerned, I received my education in an allopathic college. The transition to homœopathy in this respect has been gradual. For the past several years, instead of giving the customary prophylactic dose of ergot, in cases where secondary post-partum hemorrhage was found, I have prescribed homœopathically, and, as well, left a two drachm vial of ergot, with directions that the ergot be used only in case hemorrhage persists in spite of the homœopathic remedy and manipulation of the uterus. I commend this method of breaking away to any who give ergot as a routine measure.

With one exception it has never been used.

In the only case of eclampsia I have had to do with, the labor had been managed by others. I may not therefore speak with the authority of experience. However, I hold myself in readiness to treat that emergency upon the same general principles: first, to remove, if possible, any cause or exciting factor—for example, by emptying the overfull bladder or rectum by catheter and enema; by hastening delivery if it is inevitable, or if the case be a desperate one by bringing on labor by intra-uterine injections of sterilized glycerine, manual dilatation of cervix and delivery by forceps, all under chloroform. I would choose the homœopathic remedy as well as I could, possibly wait for it to act while I kept the patient under the influence of chloroform.

At any rate, if the selected remedy failed to act, I would certainly resort to the temporary use of old-school methods; chloroform, veratrum viride in sufficient dose to keep pulse at about sixty, perhaps catharsis, and so forth.

I am not endeavoring to lay down any hard and fast line of treatment for obstetrical emergencies, but rather to elucidate the principle of a line of action.

The sphere of usefulness of homœopathic medication is limited on the one side by conditions with which medication has nothing to do and on the other by the personal equation, the ability of the physician to apply the law of similars.

After all, that sphere of usefulness may be a very extensive one, if as disciples of Hahnemann, we patiently try to perfect ourselves in the art of homœopathic prescribing.—*A. H. Rodgers, M. D., Corning, N. Y.*

WHAT'S IN A NAME?—Homœopathists are accustomed to such terms as potencies, dilutions, attenuations, dynamization, etc., and are fully accustomed to the idea of increasing the efficacy of medicinal treatment by reduction of dosage. It is interesting and amusing to find that some of the experiences of our homœopathic predecessors are being duplicated occasionally by careful observers in the ranks of the dominant school. For instance, an interesting therapeutic note found in a recent issue of the *New York Medical Journal* calls attention to the "Superiority of Diluted Tinctures of Iodine in Dermatology." According to the note: "Sabourand in *La Clinique* for November, 1906, declares, that he does not know of any skin disease in which the pure tincture of iodine, is superior to the diluted tincture. Usually he directs the official tincture to be diluted to one-tenth its standard strength. This solution has the great advantage of being borne well by the skin when daily applied. The pure tincture is too caustic, and excites too much inflammation for cases where the antiparasitic effect only is desired. This mitigated tincture of iodine, in fact, is the preferred remedy in all cryptogamic parasitic diseases of the skin for the purely medicinal treatment."

"Mitigated tincture" is a useful phrase, and the term, if not the fact, has the charm of novelty. To use the terms "dilution," "attenuation," "potency," would be borrowing from homœopathic literature; a thing which would hardly be looked upon with favor by Sabourand's colleagues. In reality, however, his "mitigated tincture" is nothing more nor less than our familiar 1x potency. And Sabourand is to be congratulated on finding it more efficacious than the official tincture. Sabourand is also to be congratulated on the invention of a new phrase. "Mitigated tincture" is a term which very potently recalls to mind the homœopathic aphorism, "Die milde macht ist gross!"—*The New England Medical Gazette*.

INTERMITTENT FEVER—A CLINICAL CASE. Dr. L. E. Bunte. The case I will present before the class to-day is one of Intermittent Fever.

January 23, 1907. Mr. G., age 60, white, family history good. This gentleman presented himself at the clinic, December 23, 1906, giving the following symptoms: Two months ago he had a chill every afternoon from 4 to 6 P. M. This was followed by a high fever which would last all night to about 5 or 6 A. M., when fever subsided, and would then have a very refreshing sleep for a few hours. No thirst nor perspiration during or after the fever. In the beginning of the chill he noticed a peculiar crawling sensation in different parts of the body, especially marked in the fingers. He also complained of soreness in the region of spleen; on examination found this organ considerably enlarged and very sensitive to pressure.

During his two months of illness there was accompanying this condition a very aggravating cough at night, causing no particular pain nor soreness in the chest, but expectorating a large amount of catarrhal sputa. Bowels regular, appetite fair and would feel comparatively well until the recurrence of the next attack about 4 P. M. On further questioning as to aggravations, ameliorations or prodromal symptoms, he stated there were none except that he felt better when warm, and a tired feeling. Prescribing on the above symptoms, I gave him *rhus. tox* 200, a dose night and morning and requested him to report in two weeks.

January 9, 1907, Mr. G., reported as requested; he told me that he had one chill at the usual time of onset on the third day after beginning to take the medicine and from that time he had been improving nicely. Coughs less, slept better and the pain in region of spleen was almost all gone. I then gave him placebo and asked him to report again in two weeks. January 23, 1907. To-day, Mr. G., makes the statement that the last medicine, viz., placebo, (note the aggravation), caused him to feel nauseated and bad in general, but after the third day these aggravations began to disappear and now feels fine. No cough, appetite good. Bowels regular, sleeps well, gained in weight and since he has recovered his natural strength and ambition, we will continue the remedy (placebo) and discharge the patient as cured.

In conclusion, let me add that my experience has been when using the higher potencies 1 m or higher that one dose usually cures. I have used the lower potencies 3 to 6 x in similar cases without any result.—*The Clinical Reporter*.

NUTRITIONAL DISTURBANCES IN INFANCY DUE TO OVER-FEEDING.—Brennemann referring to the symptoms of over-feeding of infants, remarks that many of the cases give but a few manifestations of trouble that have little or no bearing on the general condition of the child; in others there is every evidence of the most profound nutritional disturbance.

An infant that is overfed becomes restless, often most strikingly shown by broken and restless sleep at night. At the same time it becomes constipated in a very characteristic manner; the bowel movements that were yellow in color and were soft and moist, become pale gray, hard and dry, will not mix with water, and are of the color and consistency of putty—so that they will roll from the diaper without leaving it soiled. The odor is strong and suggests decomposition. The urine has commonly a strong ammoniacal odor and easily produces irritation of the skin.

At the same time the child gives evidences of a fundamental disturbance of nutrition. It becomes pale, its tissues lose their tone, the abdomen becomes soft and moderately distended with gas. A striking symptom is a failure to gain weight on the same food or a greater quantity of food that up to this time has produced normal or even abnormal gain in weight.

The author tabulates his conclusions as follows:

1. Over-feeding is so prevalent in this country that it is the rule.
2. Over-feeding is second to no other factor in the pathogenesis of infant feeding.
3. Over-feeding presents an easily recognizable definite symptom complex.
4. The percentage method is inadequate to prevent over-feeding, the well-known schedules for an average healthy infant of a given age, fostering it by recommending excessive amounts; and moreover, mere percentage leaves undetermined the amount of food the baby gets.
5. To feed rationally and especially to prevent over-feeding, it is necessary to know how much food the baby is getting in proportion to its body weight, best expressed in terms of energy quotient.
6. The disturbing element in feeding with cow's milk is the fat.
7. Fat, in excessive amounts, regularly produces constipation. Proctoids never do so.

8. It is never necessary to give more fat than proteids of cow's milk.
9. The intervals between feedings should be four hours.—*Journal of the American Medical Association*, April 20, 1907.

APIS MELLIFICA. By Franklyn P. Davis, M. D., Agra, Okla. "After aconite," wrote Dr. Wolf in 1858, "apis is the most comprehensive and universally useful remedy we possess," and while we do not know the composition of the poison, I consider it a far more important remedy, and as having a greater range of usefulness than is generally accredited to it. For if there is any remedy that will give prompt and expected results when properly exhibited, according to the specific indications, it is apis.

In removing a sting from the flesh it should be by pushing the sting to one side and out, as to grasp it between the fingers only tends to press the poison out of the poison-bag into the wound.

In the Hymenoptera, generally, the poison apparatus consists of two distinct glandular systems, one secreting a fluid strongly acid, and the other a fluid weakly alkaline (Carlet). The first has long been known and produces what we have been led to believe is formic acid; the latter, observed and dissected out by Carlet, consists of a long, glandular tube, emptying at the base of the sting; the mixture is always acid.

Carlet made experiments on flies with these results:

- (a) When stung by a bee they die instantly.
- (b) When inoculated with either fluid the result is not fatal unless after a long interval.
- (c) When inoculated with both fluids consecutively, death ensues very soon after the second inoculation—apparently at the moment that the two fluids mix in the body.

His conclusions are:

1. The poison of the hymenoptera is always acid.
2. There are two liquids, the one strongly acid, the other weakly alkaline, and the poison is active only when these two liquids are mixed.
3. These two liquids are produced by two special glandular systems.
4. The two glandular systems empty at the base of the sheath of the sting.

From experiments made by Phisalix on sparrows, it has been proven that there are three distinct kinds of effect from the poison—a local inflammation, convulsions, and somnolence or stupefaction. In these experiments the poison apparatus was taken from the bees and mixed with water, this solution being injected into the birds. In all cases the results were the same as when stung by the bees. These birds are very susceptible, showing the effects almost immediately after receiving two or three stings, and die in a short time.

Phisalix claimed that there were three distinct, active principles in the poison:

1. An inflammatory principle. This he finds by experiment is destroyed by heating to 100° C.; the poison exposed for fifteen minutes to the heat of boiling water no longer causes the local symptoms.
2. A convulsive principle. This is similarly shown to be destroyed by a continued heating at 100° C.
3. A stupefying principle. This was destroyed by a heat of 150° C.

The poison of the bee has been said to be similar to that of the viper and scorpion, but I have been unable to verify this statement.

Apis has a direct action on the heart, usually described as a pressure and heaviness, accompanied by a drawing-down pain; respiration becomes heavy, followed by nausea, pain in the head, and fainting. Paralysis was the first symptom noted in the experiments on sparrows. When the injection was made in the foot the member became inactive. This was followed by convulsions. The convulsive action continued for from two to five hours, and was followed by somnolence, stupor, and troubled respiration, which were the last symptoms noted before death.

A very good picture of the action of apis in toxic doses may be had from a report of a case that came under the observation of Mr. Selser last year, in which a man received about 100 stings from black bees in a few moments, principally on the face, hands and arms. In fifteen minutes he had violent palpitation of the heart and buzzing in the ears. This was followed in half an hour by a tingling sensation in his limbs, as if he was going to sleep. While, as he expressed it, his heart beat so fast that his ears felt as if the drums would burst. A little later everything seemed to get black at once. He felt faint and his friends thought he was dying. His lips and finger tips (under the nails) became purple. An hour later his heart slowed down and a severe chill followed. That night he felt a peculiar sensation all through his body, which appeared in different places, but more especially in his head, back, down his spine, in his limbs, and then back to his head again. He had some pain in the region of the heart for two weeks after.

The general indications for the use of apis are a feeling of lassitude with trembling; sudden prostration of vital force, nausea, cold extremities, paleness of face and feebleness of pulse (Pulte). Itching, with burning of any part, constant desire, but inability to freely urinate, the urine being deep red (Scudder).

The one indication that I would lay especial stress upon is that the skin or tissues are a purplish color. With this fact in mind, and the other indications present, we can always give apis with the assurance that it will give prompt and decided results.

I have used this remedy in nearly every disease in which it has been recommended by the homœopathic and eclectic writers, and have always found it one of the most valuable remedies we possess. I have had good success with apis in simple apoplexy, and have given it hypodermically in epileptic convulsions with apparently good results.—*The American Physician*.

THE HOMŒOPATHIC TREATMENT OF WHOOPING COUGH. J. B. Brown, M. D. It is claimed by some that whooping cough is a neurosis of the upper air passages, others think it an affection of the stomach, while the bacteriologists claim a germ to be the causative factor. Whether these theories are right or wrong, it matters little to the physician, as the causative effect is based upon its symptomology.

In looking up the treatment of our old school authors I was not surprised to read the following from one of the leading pediatricists who expressed himself in the following manner: "In regard to curative at-

tempts of whooping cough I have come to rely on a single remedy, viz: morphine." And still we wonder why people become such devout followers of Mother Eddy's dogma.

The stage of invasion may call for aconite or cina. During the second or convulsive stage belladonna and hyoscyamus are required. In this stage the paroxysms are complete with the sonorous inspiration; there is more or less malaise; the child doesn't feel like being up and around; face may be pale or flushed; eyes are congested and watery; a white ropy mucus discharge from the nose; child vomits mucus, bile and food. There may be rales in the bronchi. The paroxysms may occur every one-half hour or oftener.

Bell. and hyos. have served me well during this stage and I find the two combined act better than each one separately. This I verified in many cases. In some cases the paroxysms become very severe, lasting from one to two minutes; the child becomes cyanotic; blood spurts from its nose and mouth; the ear drums rupture. To see the child during one of such paroxysms would lead one to give a doubtful prognosis. They cough as long as the breath lasts, vomit mucus, blood, etc., then fall back exhausted and cyanotic. They want to be still and begin to cry when they detect a paroxysm coming.

Ipecac ix wins all the laurels for this condition. It lessens the mucus ropy discharge, relieves the nausea, ameliorates the paroxysm and stops the hemorrhage in from one to three days. It is a gem.

The third stage is characterized by a hacking cough and more or less bronchitis. The cough at times is very annoying, especially at night. Drosera with an occasional dose of hyoscyamus will clear up the case within two or three weeks.

Whooping cough uncomplicated will yield nicely to the above four remedies, used in the order and symptoms named. When complicated with convulsions, meningitis, teething or capillary bronchitis, various other remedies are indicated. Milk and liquid diet is best. The child should be kept indoors until paroxysms have ceased, otherwise the disease will be prolonged.—*Progress.*

THE ABUSE OF QUININE. A few days ago my attention was attracted to an article in an old-school journal in which the writer recommended massive doses of quinine for the treatment of pneumonia. There is probably no disease, and certainly no febrile disease, in which this drug has not been used. Even when the dosage is not large this promiscuous use is reprehensible as mere routinism, but when it is given in the excessive doses recommended in the above article its capacity for harm is so well authenticated that such doses should be more properly called "criminal" instead of "heroic." This large dose is the logical sequence of the belief prevalent in that school that the action of quinine as a specific in malaria is due to its being a direct poison to the malarial parasite. Hence it is desirable to have as much quinine in the circulation as possible at the time of sporulation. While it is true that quinine is an efficient antiseptic and disinfectant when used externally, it is crude reasoning to attribute its internal action to this property. The Italian investigators, after experiments made to demonstrate this theory, confessed "that its action is not so sim-

ple." Osler, who evidently holds this materialistic view of the matter, and recommends ten to thirty grains daily in divided doses, yet has this to say: "I have a number of charts showing that grain doses three times a day will in many cases prevent the paroxysm, but not always with the certainty of the larger dose."

Quinine is a poison to protoplasm, and even in a proportion of 1 to 20,000 (Hare) arrests the amœboid movement of the leucocytes. In the last edition of his work on Tropical Diseases, Manson says: "In what way quinine acts has not been satisfactorily explained." Inasmuch as all such "explanations" are hypothetical we are at liberty to choose the one that seems the most probable. As between the crude, materialistic view that it is a direct poison to the parasite, and the view that its action is dynamic—i. e. through its influence on the vital force—the latter is certainly the more probable. Manson says: "That there is a protective power in the human body against the parasite is certain, otherwise spontaneous recovery from malaria could not take place."

It happens that the two spinal senses affected in ataxies are sight and hearing, and what is more remarkable still, the pupils in quinine amblyopia do not react to light, which is one of the earliest and most common symptoms in ataxies.

I would not give the impression that I think all cases of ataxia are the result of large doses of quinine, but rather that large doses of quinine may be a hitherto overlooked etiological factor in locomotor ataxia. In spite of such positive knowledge of the danger from large doses which Manson speaks of as occasional, they go on taking the risk. These bad effects are serious enough, even if only occasional, to warrant caution in the use of the drug, but it is only the cases that are so obvious that even the most prejudiced must see that they are recognized. The sequence in the majority of the cases is not so obvious and is overlooked. In none of the old-school authorities at hand do I find as much as a mention of quinine as a possible factor in various chronic conditions, and this should occasion no surprise. However, there are some signs that the light is breaking. In the *New York Medical Record* of December 1, 1906, is an article on "Quinine Fever," in which the writer says, among other things: "The first one to report this untoward effect of quinine was Samuel Hahnemann," etc. In the *New York Medical Journal* of December 22, 1906, is another with the title "Is the Supposed Efficacy of Quinine in Malarial Fever More Apparent than Real?" in which occurs such wholesome Hahnemannian doctrine as this: "It is no wonder that a drug should have come to hold the transcendent place of this one which so masks, temporarily, the acute symptoms of a disease, which has such an enormous amount of capital concerned in its exploitation," etc. In the introduction to China in the "*Materia Medica Pura*," Hahnemann has written in such strenuous language on the "abuse of bark" that it is likely to impress one who is not alive to a similar abuse of its alkaloid in our day as the extreme views of a fanatic. But in this as in so many other things, time, the ally of truth, is vindicating the founder of homœopathy. The final sentence in the *Journal* article reads thus: "Whether they who deny its virtues and affirm its dangers, or they who continue to pay their devotions at its shrine, are the heretics, time will surely determine." While followers of Hahnemann

may affirm its dangers, they do not deny its virtues. They believe that it is adapted to but few diseases, and that if homœopathically indicated a single small dose will have a curative effect. Even if it does not prove curative, their practice will not result in a drug disease which may be worse than the original disease.—T. G. McC. in *The Pacific Coast Journal of Homœopathy*.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

STRAMONIUM.—According to Heinigke, stramonium is suitable as a curative remedy in cases which are of recent origin, and set in with violent symptoms; which may be assigned to primary affections of the brain, which are characterized by the combination of distinctly observable psychical disturbances with the morbid phenomena of the bodily sphere, in which the (conscious) imitation and combination of ideas of various domains as well as the impulse for intended motions, have been withdrawn from the control of conscious, free volition, in which the involuntary motions show a certain rhythmus, in which convulsive motions with aphasia set in amid but slightly disturbed consciousness, in which, during delirium, a rapid change of ideas, with regard to their contents takes place, so that we observe the succession from laughing to weeping, from joy to sadness, from hilarity to timidity, and timid fright, without immediate transition in their extremes.

THE USE OF BARIUM IN ARTERIO-SCLEROSIS.—In the *Revue Homœopathique Française*, of December last, Dr. Cartier, of Paris, gives us an interesting study on the action of the salts of barium upon arterio-sclerosis, which reads as follows: "The homœopathicity of the salts of barium to diseases of the circulatory apparatus has been scientifically confirmed by the experience of numerous physiologists, who have proven that barium acts upon the heart and the blood vessels.

"Among the minor symptoms of cerebral sclerosis I shall mention the more or less dull cephalalgias, without acute crisis, which manifest themselves more by a heaviness of the head than by pain. These headaches are perfectly amenable to baryta, which should be discontinued from time to time, if the head becomes clear. I shall particularly refer, as a clinical observation, to a case of an old lady who suffered from obstinate headache and for which, after the failure of ten remedies, I was led to prescribe baryta muriatica, 3x, thinking the trouble was a chronic arteritis of the brain.

"Side by side with the cephalalgia of the aged, I shall place vertigo from cerebral anæmia, which is precisely due to induration of the arteries. Baryta will certainly relieve this vertigo, but I have never obtained a com-

plete cure; as the sclerosed arteries remained sclerosed. The noises in the ears in old persons when there is ossification, though rebellious to treatment, can also be slightly improved by a long course of both baryta carbonica and muriatica.

"I do not believe that the salts of barium are immediate remedies for apoplexy, but, as they act upon the muscular coat, they enter in the category of preventive remedies, and likewise we find them efficacious in the remote consequences of apoplexy, as it has been proven by repeated observations. Such has been the case in paralysis of the aged following apoplexy, and in the headaches of this class of patients, when they become childish, as a consequence of hemiplegia. In fact, I have myself observed the amelioration of headaches, troubles of speech, and paralysis, the consequences of old hemiplegias; some of them being of more than three years duration. In such cases baryta must naturally be given for months.

"Aortic sclerosis can be greatly allayed, even its symptoms blotted out to the extreme of simulating a cure, by the weekly alternation of baryta carbonica or muriatica, in homœopathic doses, and the iodide of sodium, in allopathic doses. Overlook this rather shocking eclecticism; I accept the charge, but do keep my formula in your note book!

"In a very remarkable case of aneurism of the aorta, diagnosed by several physicians, I was able, by means of baryta, to arrest for months, the oppression, the palpitations, and above all an intolerable pain in the right arm. I could, however, detect the pulsating tumor, notwithstanding the improvement, and soon after the patient died suddenly. Baryta, nevertheless, rendered the patient an immense service for months. And here, I wish to call the attention to the fact that this patient had been subjected to the new treatment by gelatinous injections without success.

"I end the series of localizations of arteritis, under the control of baryta, by the sclerosis of the pulmonary arteries or senile asthma, where I think this remedy exerts its greatest influence. I can give an extraordinary example of improvement, or pseudo-cure, in a typical case of pulmonary arterio-sclerosis. My patient, 77 years old, presented all the signs of arterial induration, at the wrist, at the groin, at the temples, &c. Pipe-stem indurations and zigzags everywhere, could be touched. He suffered from chronic asthma since the age of 70. After an examination of the arteries, I had the idea of giving him baryta carb., 6 and 30. I lost track of him, but after eighteen months I found my patient completely transformed, he could go up stairs and he passed a winter that seemed to be for him a paradise on earth. Greatly puzzled at the change, I asked him what he had done, and his answer was that he had taken baryta carb. daily for eighteen months. I examined him again and found his arteries in the same state of induration, showing that the praise of baryta was not deserved, but his lungs were breathing well. It would be a difficult matter to explain this fact. It is certain that the pulmonary arteries must have remained like those at the wrist and that at the first cold contracted, the asthma would reappear. If baryta can modify the symptomatology of arterio-sclerosis, it can not give back elasticity to the arteries, at least completely, and not more than the iodide of sodium.

"In view of the above we come to the following conclusions: It is possible that baryta may attenuate and even arrest the course of arterio-

sclerosis, without restoring their integrity to the sclerosed tissues; perhaps also, and this seems more certain, baryta, by modifying the arterial tension, relieves the sufferer more than the arterio-sclerosis itself. This fact falls upon the domain of similia, for the intoxication produces in a real and scientific way disorders of the circulation. The arterial tension and the contraction of the arterial muscular tunic, are sufficient by themselves alone to explain the homœopathicity of the remedy in arterio-sclerosis. I regret very much my inability to find, in the researches I have made, any lesion of the tunica intima, in intoxications, though Farrington tells us that baryta seems to have brought about paralysis by causing a degeneration of the arterial tunics, but I do not know what kind of degeneration he means and upon what researches does he base his assertion. Apart from this statement, I have found nothing scientific, either in microscopical researches, or in arterial histology."

"It is a singular fact that the poison which by its effects most resembles arterio-sclerosis is plumbum. The workers in lead see their arteries gradually harden and still lead has never (?) cured a single case of arterio-sclerosis. I still remember the astonishment of Prof. Allen, in one of his lectures at New York Homœopathic College, sixteen years ago. Why does not plumbum possess a homœopathic action? Because the sclerosed tissue is unassailable. We have remedies that we can observe *de visu* act around the inflamed scars, but they do not attack the scar itself. The cicatrix may contract, by molecular death, or by compression of the healthy tissues, but the sclerosed tissue is the stigma of old age; it develops with the senile organism, and hence one can well conceive the difficulty of extirpating arterio-sclerosis. Nevertheless, if we can verify the gradual reduction of the tonsillar gland by the prolonged action of baryta, why should it be impossible for this remedy to modify in its course the proliferation of a more sturdy tissue? At any rate, we have the certitude that if it does not act upon the tunica intima, at least it modifies the arterial tension. It would be satisfactory if we could offer our school a remedy analogous to the iodide of sodium, which remains always the base of old school therapeutics."

BIOLOGY.—Drs. Levi and Rothschild thus describe the awakening or revival of the appetite. In twenty-one former experiments they obtained the return of the appetite by the thyroidal treatment. They now report two new cases: that of a girl 12 years old, who after 15 days treatment, and thanks to an appetite of an ogre, gained in 40 days, 4 kilos. 400. and 4.05, and that of another girl of 5½ years, who with ten powders gained 600 grammes in a week.

The thyroid gland acts upon the cerebral apparatus, and gives birth to curiosity, taste for work and application to study. The sexual appetite is also influenced, as was observed or verified in a case of chronic rheumatism improved by thyroid medication. In orthothyroidis the gland regulates these different appetites (oregogenic functions). Does only the thyroid gland possess the property? Recently the influence of hypophysin upon intelligence has been demonstrated. It is undoubtedly by acting upon the thyroid gland that phosphorated medication influences the various appetites.

THE CHOICE OF THE REMEDY AFTER THE EXAMINATION OF THE URINE.—By Dr. Bergmann, of Berlin (Pop. Zeitschr. für Homœop., November 1906). A true therapeutic is the one which seeking what is needed, covers the totality of the symptoms with all the scientific informations possible, rather than the one that limits itself to a diagnosis, solely supported by the pathogenesis of the remedy. A modest practitioner, without pretension to a faultless diagnosis, but capable of determining with precision the medicamental characteristic of the morbid form, will readily fall upon the remedy, he alone thought of, and obtain permanent success.

Experience has proven Dr. Bergmann, that the symptoms presented by the urine are the best guide for the knowledge of the similar.

Bryonia.—Scanty, deep red urine, abundant scum, formed of small bubbles. Deweys pretends that no deposit is formed, but at the end of 20 or 24 hours a whitish precipitate is plainly seen. The urine throws down a not very heavy ring, but well defined, which separates from the mass of the liquid. Burning urine, causing while passing dull pains in the urethra.

Calcaria Carbonica.—Very red and muddy urine, depositing a sediment resembling flour of grayish color. The odor is penetrating and a thick circle, clearer than urine is observed. We also noticed numerous small flakes that do not adhere to each other.

Cantharides.—Reddish urine, very muddy, with abundant sandy sediment, mixed with glutinous, sticky mucus. No scum, but one observes a thick reddish ring. Floating on the urine we also notice a cloud of long gray flakes. The patient complains constantly of urinary tenesmus, and sometimes of pains in the bladder and urethra, making the patient scream.

Carbo Vegetabilis.—Thick, cloudy, high colored urine, showing shortly an abundant brick dust sediment. The urine emits a strong odor and forms a ring of matters of a greenish hue. There is also a froth or foam of large bubbles, slightly adhering, but not persistent.

Alumina.—Thick urine of offensive odor, yellow when passed, but soon becomes muddy, forming a cloud rich in materials, not very adhering at first, but in a few minutes leaving a thick whitish sediment, like clay, which after certain time adheres tenaciously to the vessel. A ring may exist, but not very lasting.

Colchicum.—Brown, nearly black urine, with a scum of small bubbles of a reddish cast. A ring, large, fixed and high colored. Odor strong, but not putrid. Formations of small cloud. Finally an unimportant sediment is formed, yellow in color and very adhering.

Kreosotum.—Muddy appearance which, by its immobility, resembles the yeast of brown beer. The urine emits a strong aromatic odor. It leaves an abundant deposit, white and mucous, alternating with two layers, which are clear the one and dark the other. There is a notable thick cloud. Small greenish ring. Abundant foam.

Arsenicum iodatum.—The urine is clear, but soon becomes turbid, with a pale-red color and strong odor. Large flakes, and cloud formed by separated dense masses. It forms a homogeneous white mass, a kind of sediment. Small ring of a bluish hue. The urine indicative of this remedy contains a notable quantity of indican.

Iodum.—An almost constant urinary tenesmus, principally at night, with scanty urine. Sometimes this secretion is increased and the liquid has a

straw color, fluid like water. When the urine is rare, which is most frequent, it assumes a greenish yellow color, cloudy and of strong ammoniacal odor. After a short time, a compact white sediment is formed, slightly cloudy, but no ring is seen in the vessel.

Kali carbonicum.—The patient has to make efforts to urinate. The secretion is much increased. The urine appears first dark yellow, then turns pale. A cloud of long filaments is formed. It has no odor. Abundant deposit of small red grains. Slight yellow ring.

Lachesis.—Frequent urination of a liquid highly foamy. Strong, but not disagreeable odor. Sulphur-yellow color, or red, like new copper. The urine becomes cloudy by the abundance of mucus, with which it is mixed. Numerous small clouds, no ring visible. Thick, reddish sediment forming two layers.

Lycopodium.—Micturition provokes pain along the urethra, and a sensation of pressure in the groins. There is a red ring, and a floating layer of iridescent greasy substance. Abundant froth forming large bubbles. The sediment appears after a certain time, not very abundant and of a yellow-red tint.

Mercurius.—Very frequent micturition, causing a sharp pain along the urethral canal. The urine clear when voided, soon becomes cloudy, and whitish, as if containing starch, offensive odor. No ring, thick grayish cloud, little foam, numerous white filaments and flakes. Heavy sediment, the inferior layer red, the superior white.

Natrum muriaticum.—The urine is mixed with profuse thick mucus, leaving transparent spots in the shirt. The odor is penetrating and the aspect cloudy as from clay. Grayish clouds not coalescing. Scum of large bubbles and of a decided rose color. Slight red ring.

Nitric Acid.—Urine of unbearable odor, strongly acid, which makes one think of the urine of horses. The excretion has a light brown color and deposits clouds and filaments. Right after the emission a sediment appears composed of light-red sand, very adhering to the vessel. Abundant scum with small bubbles. Separated clouds. Incomplete ring.

Nux vomica.—The urine is pale, inodorous, mixed with viscid mucus. A large greenish zone is formed animated by a quivering motion. Profuse scum, with large, yellow bubbles. Rare clouds, but condensed into round masses. Thick sediment, of dirty aspect.

Opium.—Difficult emission of scanty, dark urine, not cloudy, but with a late formation of small, separated nebulosities. No scum, but brick-dust sediment. Small incomplete ring. Greasy pellicles with greenish cast.

Rhus toxicodendron.—There is a feeling of heat in the bladder. The urine is first muddy and flaky and becomes after clear, leaving a white, snowy sediment. No clouds, but a brim with large yellow bubbles. Odor penetrating. Large, fixed zone.—*L'Art Medical*.

NOTE.—It is to be regretted that Dr. Bergmann did not include in his interesting paper, such remedies as benzoic acid, sarsaparilla, berberis, apis, therebinth, helleborus, phosphorus, &c., which have a brilliant clinical history. In none of the remedies mentioned does he refer to albuminous and hematic urine, or to polyuria, and his treatment of cantharis and lycopodium is certainly disappointing.

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BORDERLANDS OF CEREBRAL LOCALIZATION.

BY

WESTON D. BAYLEY, M. D., PHILADELPHIA.

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THE considerable reference to brain topography in current medical literature, and the increasing frequency of intra-cranial explorations, have made the general practitioner tolerably familiar with the common seemingly established facts of cerebral localization. Without having given the subject especial study, he knows that there is represented in portions of the brain adjacent to the fissure of Rolando, and from below upwards, centres concerned with movements of the face, the arm and the leg, of the opposite side of the body. He knows that the posterior end of the lowermost frontal convolution is connected, in some way, with the motor memories of speech; and that immediately above this in the frontal lobes is a region of brain which has to do with the associated movements of the head and eyes. That in the first temporal convolution is the centre for hearing, and that in the cuneii of the occipital lobes are found the centres for half-vision in each eye.

The parts of the cortex which represent the complex mechanism of speech, and which when, damaged, result in the various kinds of aphasia, have doubtless evoked his wonderment and admiration, as these problems have been successively unfolded; for it is now common knowledge that, on the receptive

side, the memories for words *heard* are associated, mostly in the left hemisphere, with the second temporal convolution, and for words *seen*, near by it in the occipital region. While on the emissive side, for words *spoken* the lower frontal already mentioned, and for words *written*, the middle part of the ascending frontal convolution, are concerned.

These general facts, and some others, being part of the common knowledge it would be of but little use to further consume your time in their consideration. When asked to address this society on this occasion, it occurred to me that a brief reference to some of the debatable and unsettled problems in localization might not only awaken our interest, but add to our principal. This sounded well as an a priori resolution, but when the time came to give it a concrete form, I found it much more difficult than at first appeared, for our perplexities regarding brain functioning are very numerous indeed, and a little reflection has convinced me that what must be but a brief paper, could readily be expanded into a volume. Furthermore, a consideration of borderland things makes it necessary to side-step from some of the existing lines of orthodox belief, and it may be no easy matter to prevent myself from wandering into realms of supposed heresy, from which highly conservative neurological opinion of to-day shrinks in horror.

Thus drunk with wine from unlabeled bottles, who knows but what we may, like Jack on his bean stalk, climb finally into some region where things sound uncanny and look unfamiliar? We may indeed encounter fierce giants and bring back glittering coin, but surely, if this should happen, no one would expect me, in the short essay of a single evening, to sort out all the counterfeits!

But more seriously to our subject. It appears likely that we shall have to modify some of our views concerning the distribution of the motor area of the brain cortex. In a report published by the Royal Society of England, Professors Sherrington and Grünbaum, after an extensive series of experiments on anthropoid apes, found that, by employing the method of unipolar faradization, motor response to this was limited to the ascending frontal convolution and its portion contiguous to the longitudinal fissure, the paracentral lobule. This activity extended along the wall of the convolution, and down into the bottom of the fissure of Rolando, but ceased on approaching the ascending parietal. Nor could any motor results what-

soever be induced, even with strong currents, by stimulating this latter region. Furthermore, the removal of parts posterior to the Rolandic fissure failed to induce any motor paralysis. Dr. A. W. Campbell, working in conjunction with Sherrington and Grünbaum, then proceeded with histological studies of the brains experimented upon, with the object of finding whether there were any microscopic differences between the parts which responded to the current and those which did not. His results we will condense from his own account: "Examining the arrangement of nerve fibre, and the types of cell lamination" in the brain experimented on "I found that it was possible to map out a histological area which agreed very closely with that which responded to electrical stimulation." In the human brain "I find that a similar arrangement and disposition of elements obtain therein." "The cortex in the excitable area in the anthropoid ape, and of what I take to be the analogous area in the human being, is distinguished by a wealth of nerve fibres, noticeable in all layers or systems, which is infinitely greater than that possessed by any other part of the brain surface." "The area exhibiting this type of fibre arrangement is practically confined to the precentral gyrus and to a portion of the paracentral lobule, and it is important to notice that the floor of the fissure of Rolando forms a very definite and constant posterior limit." "The same area corresponds approximately with the distribution of the giant or 'motor' cells of Betz and Bevan Lewis, the chief difference being that it is somewhat more extensive." . . . "Strong confirmatory evidence in support of the assumption that, in man as well as in the manlike ape, the elements controlling volitional muscular movements are confined to the precentral gyrus and its paracentral annex, is afforded by an examination of the brain in cases of amyotrophic lateral sclerosis, a disease limited in its affection to the muscular system and to the motor system of neurons." . . . "In two cases which I have examined exhaustively, there was a wholesale disappearance of these 'motor' cells in the precentral cortex," the post-central gyrus entirely escaped affection. Further confirmation of this distribution of the motor elements was obtained from the examination of brain exhibiting the cortical cell changes consequent upon amputation of limbs. "In two cases of amputation of the leg a short distance below the knee," continues Campbell, "I have found changes limited to the upper extremity of the pre-

central gyrus and its paracentral annex; in other words, to the part which in the case of the high apes, seems to control movements of the toes and ankle. In another case of amputation at the knee joint, associated with great atrophy of the thigh muscles, the changes extended further outwards, but numerous cells above the superior annectant gyrus remained intact, the latter probably govern hip movements. In two cases of amputation of the arm through the humerus, degenerated cells were found over an extended area corresponding very closely with Professors Sherrington and Grünbaum's experimentally located areas for finger, wrist and elbow movements, and in one of these cases which was associated with extreme wasting of the shoulder muscles, a large group of cells lying immediately below the superior annectant gyrus, was affected. In a case of amputation of the hand, the changes were limited to the lowermost part of the last mentioned area."

Commenting on these results, Campbell adds: "It is impossible to reconcile these findings with the long list of clinical observations adduced in the past to support the view that the two central convolutions have an equal share in the control of volitional movement, and it is suggested that natural lesions, such as cerebral softening, cerebral tumor and cerebral trauma, which form the basis of most of their observations, are only in rare instances sufficiently limited in their effects to allow a safe judgment on the question.

"The giant cells disappear before the lower extremity of the fissure of Rolando is reached, and are consequently not found over that portion of the cortex which we regard as the face centre. In this area, however, large cells are found, differing from the pyramidal cells common to the whole precentral area, and these are possibly special presiding elements (for facial movements).

"These experiments and observations, especially if they are confirmed by other competent neuro-histologists, will relegate the familiar diagnosis of the motor cortex, now current in our text-books, to the waste paper basket! Apropos of this, and more recently, Beever,* from a clinical study of his own cases, thinks that they tend "to show that tumors in the ascending parietal, and especially tumors in the inferior part of the parietal lobe, are more likely to have fits beginning with a sensory aura and to be followed by more extensive and permanent an-

*Lettsomian Lectures—*Lancet*, February 2, 1907.

æsthesia and analgesia than tumors in the ascending frontal convolution, where the sensory changes are chiefly defective localization and loss of the sense of position in a part which is first affected by the motor spasm of a fit."

The studies of the cortical changes in amyotrophic lateral sclerosis (a disease strictly of the motor tracts) was followed by Campbell with studies of the cortex in tabes dorsalis, a disease which is as clearly sensory as the other was motor. The associated changes in the cortex were limited to the postcentral gyrus, and to use the words of the author, "the evidence derived from a study of these cases may be confidently advanced as stronger than any which has yet been adduced in favor of the assumption that the cortex of the postcentral gyrus, and it alone, is the primary terminus or arrival platform for nerve fibre conveying impulses having to do with common sensation."

Whether the views of this observer regarding the separation of motor and sensory areas by the fissure of Rolando are ultimately confirmed or not, it remains a fact that the entire question of sensation and perception is a very complex one. What we commonly know as sensation is a compound affair, which, reduced to its simplest elements, as at present understood, consists of (1) *tactile sense*, which is the mere recognition of cutaneous pressure and the power of localizing it. (2) *The muscular sense*, or recognition of tension and of weight (the joint muscles and tendon sense furnishing us the concept of the position of limbs, so that it is a mental report of movement, weight, strain and resistance). (3) The sensation of *pain* and of *temperature*.

In addition to these centripetal elements of sensation, there is a sort of sensorio-motor cycle—a primary sensibility which originates all movements, and a secondary sensibility which result from movement, and these in turn serve as guides for renewed performance of similar movement (Bastian). The conscious coaptation of varied tactile and temperature sensations, together with those of pressure and weight, by which we are enabled to identify without the aid of vision an object held for instance, by the fingers, is the so-called stereognostic sense, and astereognosis is the loss of this faculty of distinguishing and recognizing objects in this manner.

That these various forms of sensation have separate representation in the brain seems likely. Certain it is that we can have "loss of the stereognostic sense with preservation of pain,

temperature and contact sense," and as Walton further remarks: * "This points to a centre for the aggregation of memories concerned in judgment of the nature of objects, separate from the centres whose functions are limited to the simple reception of the various sensory stimuli contributing to the aggregation." It is not likely, however, that the stereognostic sense is represented in a certain circumscribed centre, for there is a stereognostic sense in the foot and lower extremity, as well as in the hand and arm. Walton† believes that for the lower extremity, the stereognostic sense should be placed "in close association with the motor leg centres," i. e., higher up. Redlich‡ in 1893 collected twenty cases, and Walton† later additional cases, presenting lesions in the middle third of the posterior-central convolution and the adjacent part of the inferior parietal lobule. An interesting case of astereognosis came under my own notice on March 15, 1905. This man, æt. 38, a coal miner by occupation, was well until the age of 32, when he was struck on the left side of his head by a fence rail. This rendered him unconscious for an unknown period, and upon coming to, he was found to have a right-sided hemiplegia and aphasia. A few days after the injury he began with convulsions, the exact nature of which could not be determined. At the time of this record he had seizures which began with cry, convulsive attack always beginning in the right hand, then becoming general; very prolonged, and followed by coma. Sometimes has three or four convulsions daily. His speech was always affected after these attacks, and in fact there had been aphasia for several weeks after the injury (?). He was right-handed, and while he could use the affected arm, there was much twitching and uncertainty in picking up objects with this hand. There was complete astereognosis in the right hand, none in the left. He was unable to distinguish knife, keys and coins. There was concentric contraction of right visual field, convergent squint of right eye, right pupil dilated, both reacted to light and accommodation. Urine analysis was negative. Three years ago he had been trephined over the left parietal region, but the findings cannot be ascertained. At the time of this record I went off duty in the hospital, but from the later record I learn that he was afterwards explored (March 31, 1905,) and I quote from the clinical report: "A V-shaped incision was made over the old

*Brain, 1901. †Ibid.

‡Weiner Klin. Wochen, 1893.

scar in the parietal region, and trephine opening [made] just below and posterior to the old opening. No adhesions between dura and brain, but old adhesions under skin flap were broken up, and gargyle membrane introduced between the scalp and dura." Unfortunately, the clinical record of this case was not as complete as one would wish, and the subsequent history was a continuance of the attacks. While this case is interesting on account of its infrequency, it is to be remarked that the findings or lack of findings in this second exploration had no possible bearing on the localization of the stereognostic centre, and so far as this case is concerned it has added nothing to what was well known more than thirteen years ago.

Beevor* is of the opinion that the occurrence of incontinence of urine is frequent in tumor of the frontal and temporal lobes, but that it does not occur as a rule with cerebellar tumors. In one case of tumor of the frontal lobe he was aided in localization by the relative impairment of the sense of smell on the affected side. There was also a "fine rapid tremor" in the hand on the *same side* as the tumor. He quotes Grainger Stewart as having observed this tremor in twenty out of twenty-two cases; in some few the tremor was observed on both sides, but more marked on the side of the tumor.

In his study of cases of tumor of the cerebellum, he classifies the (1) *extra cerebellar* (growing without, but impinging upon the cerebellum), and *intra-cerebellar* (these further subdivided into those of the lateral hemisphere, and those of the vermis). In both varieties, headache, vomiting and double optic neuritis are early and pronounced symptoms. Quoting the studies of Grainger Stewart and Gordon Holmes,† he says that "in both forms of tumor the patient in the vertigo thinks that objects are going in the direction away from the side of his lesion. . . . With regard to the patient himself . . . he seems to turn in the same way as the objects" when the tumor is *intra-cerebellar*, "whereas in *extra-cerebellar* cases he seems to turn the opposite way." In the *extra-cerebellar* variety there is apt to be involvement of the 7th and 8th and frequently the 5th and 6th cranial nerves, which is not the case in the *intra-cerebellar* growths. Motor symptoms occur on the same side as the lesion—in conjugate movements of the eyes "there is difficulty in turning both eyes toward the side of the lesion," and this effort may produce nystagmus. An-

*Loc. cit. †Brain, 1904, p. 522.

other interesting symptom is thus stated: "If a normal person executes a movement against a resistance which is suddenly removed, he is able to prevent the movement being carried on by bringing into action the antagonist muscles, but in cerebellar tumors this power appears to be lost. Also ataxy is present in the paretic limbs, which is not increased when the patient closes his eyes, showing that its origin is central, and not due to peripheral sensory changes as in locomotor ataxia."¶

In the matter of the localization of mental functions present-day alienists and neurologists are severely pessimistic beyond the attributing of general mental hebitude to lesions in the frontal lobes, and "curious dazed, dreamy attacks" associated with affections of the uncinate. Campbell is convinced "from a lengthy experience in the pathological laboratory attached to the Rainhill Asylum that, in a large proportion of cases dying insane, all the microscopic methods at our disposal will fail to disclose changes either in the nerve cells or fibres to which we can refer their altered mental condition."* But that there must be some actual pathography in mental affections few, in these days, are inclined to deny. It is more satisfying to admit that our present methods of pathological investigation are crude—and primitive they must be as considered from the standpoint of the possibilities of the future. We should not be discouraged at negative findings, but rather should we marvel that so much has been learned of the brain, normal and pathological, in such a short recent period. In this connection it may be interesting to refer briefly to Hodges's studies of the effect of normal fatigue on the cortical cells of the bee, sparrow and pigeon. From relative experiments, under conditions of enforced fatigue, compared with the normal states, "the nucleus [was found to have] lost its network or reticulated aspect, it decreased in size and became crenated in contour. The cytoplasm usually shrinks considerably, does not stain so readily and loses its affinity for oxygen; occasionally vacuolation occurred. The normal condition was only very slowly restored after prolonged rest, five hours' stimulation requiring twenty-four hours' repose for complete repair."†

Up to the present, in modern brain studies, there has occurred little or nothing to suggest the possibility of the locali-

¶Lancet, March 16, 1907.

*Histological Studies on the Localization of Cerebral Functions. †Bevan Lewis, "Mental Diseases," p. 68.

zation of strictly mental functions to given regions of brain structure, and the current orthodox literature makes no mention of mental functioning being represented in any circumscribed areas. But if anyone having a more than common interest in this question will take the trouble to look into the somewhat large literature representing the earlier efforts in this direction, having first divested himself of the prejudices of modern training, and arrived at a mental attitude which renders him indifferent to the criticism of those who have a horror of all views not cut out in conformity with the prevailing fashion, it will be apparent that the time must come when we will have to rewinnow, perhaps with less crude machinery, the heaps which have been cast aside in the granary, and seek to obtain from them the grains of reality which now lie hidden in the chaff of primitive method.

With the common prejudice which I shared against so-called mesmerism, until I studied it, I some time ago began an investigation of the literature of early phrenology, and common honesty compels me to admit that whatever the errors of these observers may have been, their methods were certainly painstaking, and in strict accord with the well-established principles of scientific procedure. It is unfortunately true, as was the case with mesmerism, that the raw and isolated facts observed and recorded were soon dragged down by a lot of ignorant and unscrupulous fakirs and "practitioners" into a mire of deserved obloquy; and the grains of apparent truth, sorted by a handful of really competent students, were soon buried in the refuse and chaff of a multitude of uneducated imitators, who took up the "profession" of phrenology from base and unworthy motives. The furore of "head reading" and "bump feeling" by this host of itinerants has so obscured the careful inductions of the few original and responsible workers that I doubt very much if these early observations will be adequately restudied by competent scientific men for a long time to come.

It would lengthen immoderately this presentation were I to go into detailed description of the methods employed by Gall and his student, Spurtzheim, about a hundred years ago. Suffice it to say that they, with splendid preliminary training, spent years, as no man has done since, in the collection of skulls of persons who were known to have had during life some marked individual characteristics; and furthermore they studied and tabulated the peculiar conformities of hundreds of heads, of

those living, and casts of those dead, comparing in the most careful and painstaking manner the possible relationships of individual temperaments with peculiarities of skull conformation.

Then followed the inductive test of their observations; the attempt apriori to indicate the personal characteristics of a large number of people, of whose propensities they were quite ignorant, by a study of the shapes and peculiarities of the heads. This is in accordance with strict scientific procedure, for they first studied the facts and their apparently constant associations; and they then applied the data thus obtained, to prediction, with a degree of success which can only be appreciated by a careful study of the somewhat lengthy original records.

The discovery of the centre for articulate speech is universally credited to Broca, whose observations were recorded in 1861, yet it is apparent that Gall had located the "organ of language in this same region about sixty years before Broca's time; and cases of traumatism to the "organ of language" producing disturbance of speech were then and subsequently recorded. Hollender, in his book on the "Mental Functions of the Brain,"* from which source the following remarks are mainly collated, gives the clinical histories of 150 cases of varying value, but which, taken collectively, affords strongly presumptive evidence that the centre for morbid fear, as first indicated by Gall, occupies the neighborhood of the supra marginal and angular gyri; and that the various lesions in this locality are productive of melancholia. The recorded cases included fifty which were traumatic and half of which recovered after operation. The idea of a "fear centre" is given at least a strong presumptive recognition in this collection of cases. Curious that anyone should seek to rehabilitate this antique lore, and forgetting to credit its real source, adroitly try to palm it off on the unsuspecting as "original discovery!"

The same author collected 350 cases of "irascible insanity and mania furiosa"; cases which we can generally term mania with manifestations of anger or rage. Here the lesions of various kinds are found to have been in "the middle portion of the cortic of the temporal lobe." And the inferences from a study of these cases certainly take one back to Gall's accounts of the skulls and brains of homicides.

*The Mental Functions of the Brain, Bernard Hollender, M. D. (London). G. Putnam & Sons 1901.

The presumption that affections of the postero-temporal region of the brain are associated with morbid suspicion and delusions of persecution this author supports with 45 collected cases of brain lesion localized in this vicinity. And he further significantly remarks that "deaf people are peculiarly subject to morbid ideas of suspicion and persecution," an observation which I can corroborate in my own experience.

Morbid acquisitiveness, or, as we now might call it, kleptomania, appears to be definitely localized in the sixteen cases collected by Hollender to the front part of the temporal region. And this coincides with the observations of Gall in his investigation of cases in asylums and prisons, where he remarked "that men who had uncontrollable tendency to theft had the anterior part of the temporal region (close to the anterior superior angle of the parietal bone) very prominent."*

Gall located the "sense of number" "at the supra orbital end of the third frontal convolution, nearest to the external angle of the eye." As recently as 1899 Prof. Möbius declared before a meeting of alienists and neurologists at Leipsic: "I have not closed the investigation as yet, but I have got far enough to enable me to say with a full conviction, in this localization Gall was completely right"; and in the discussion which followed, Flechrig said that it is "probably the lowest portion of the frontal convolution" which is especially developed in mathematicians.

Gall found satyriasis and nymphomania to be uniformly associated with large occipital convexity, and many cases since collected by the phrenologists serve to confirm the idea that the size of the cerebellum is in some definite way a measure of the sexual propensities of the individual.

We could proceed to study in greater detail these cases collected by Hollender and others, and we could go into a lengthy and perhaps interesting account of the labors, trials and controversies of the old phrenologists, but to do this would exceed the scope of the present essay, which is merely intended to be sketchy and suggestive.

To briefly summarize what I have wished to convey in this somewhat disconnected presentation is:

(1) That our knowledge of cerebral localization cannot be said to have reached its maturity; since seemingly established observations, like the boundaries of the so-called motor areas, appear to be subject to revision.

*Ibid, p. 199.

(2) The latest experiments appear to limit the motor functions of the leg, arm and face to the ascending frontal convolution and its infoldings.

(3) That posterior to the Rolandic fissure we have the sensory area, which is open to future study in the individualization of the various elements and compounds of sensation.

(4) That phrenology, as originally developed, was the result of careful and seemingly accurate observation on the part of some very competent men; and that at least some of the principles of phrenology appear to be confirmed by contemporaneous and more recent clinical data.

(5) That the whole question of phrenology, like that of mesmerism, should be carefully restudied in the light of modern methods and with the aid of modern helps; because some study of its literature awakens a conviction that it is an issue not dead, but only in a coma, the result of having been too roughly handled by quacks and bump feelers. And this plea has the support of that eminent naturalist, Alfred Russell Wallace, who in his collected essays published under title of *The Wonderful Century*, deplores the unwarranted neglect of the work done by the old phrenologists. •

GNOCOCCIC CONJUNCTIVITIS, TREATMENT OF. In gonococcic conjunctivitis of adults, the writer considers that neither protargol nor argyrol is a safe remedy when used by itself; in so far as his own experience is concerned, the writer states that protargol may as well be abandoned; argyrol is useful because it is bland and unirritating and helps to remove the pus, but it has no control over the specific nature of the disease. Thus far at least, there is no better remedy than properly applied solutions of nitrate of silver, which doubtless are more efficient than they were in the past, because argyrol and similar silver compounds may be used as adjuvants.

Many cases of ophthalmia neonatorum are better treated with argyrol for the simple reason that it can do no harm; it acts as well as, and better than, most of the nonspecific remedies. Nitrate of silver may do harm unless it is applied by a skilled hand, but its proper application is required in a certain percentage of cases.

In the treatment of gonococcic conjunctivitis of adults, atropine drops should be used in order to keep the pupil dilated from the very start and to lessen the tendency to hyperæmia of the uveal tract. Internally, the patients should have opiates, if required, and supporting measures if they are depressed and anæmic.—G. E. de Schweinitz, *Therapeutic Gazette*, January 15, 1907.

ARTHRITIS DEFORMANS: ITS CLINICAL ASPECT.

BY

G. MORRIS GOLDEN, M. D., PHILADELPHIA.

(Read before the Germantown Homœopathic Medical Society, April 15, 1907.)

It is not the object of this paper to give a detailed account of the disease, but to call to your attention a clinical study of this most prevalent affection. It is true that its occurrence is more frequent than is generally recognized, affecting the old and young, making their lives a burden unto themselves.

This most formidable condition dates back to antiquity. Its distinctive features, as compared to other rheumatic conditions, was not pointed out until done so by Heberden in 1804, and later by Hygarth. Notwithstanding this fact, it was classed by the later writers with gout and rheumatism, and at the present day is looked upon by many of the profession as a rheumatic condition.

I feel that we are too ready to class our joint affections as rheumatic, especially the various arthritic conditions in their earlier stages. By many rheumatism is regarded as arthritis, and arthritis as rheumatism. As a matter of fact, a large number of the cases diagnosed as a rheumatism are not rheumatic, but arthritic manifestations of another disease. If we will think for a moment the term arthritis is a condition only and not a disease. I could probably summarize a dozen different forms of arthritis, each having a different etiological basis. Then why do we persist in narrowing our classification to probably gout and rheumatism, acute and chronic? When in reality they are distinct and independent conditions of their own, having little relation one to the other; and forming but two of the various forms of arthritis.

The terms rheumatism and rheumatoid have been greatly abused, and confused with many other conditions, too often acting as a hood, when we are not cognizant of the condition at hand. So let us in the future endeavor to obtain a little order out of chaos, attempt to individualize and classify our conditions, so that a more thorough understanding may be had of them.

For a clinical classification I will use that of McCrae, dividing the cases into: 1. Heberden's Nodes. 2. Polyarticular Form. 3. Monoarticular Form. 4. Spondylitis.

1. Of Heberden's Nodes we have little accurate knowledge. In this form we have the fingers affected by the formation of small hard growths, at the dorsal surface of the distal phalanges. They are not gouty in nature, showing no urate of soda. They give very little trouble unless excited by injury, and no tendency to involvement of larger joints, and are rarely associated with the more severe forms of the disease. According to McCrae's statistics, they appeared nine times in a series of ninety-four cases of the polyarticular variety.

2. Polyarticular Form.—This class will comprise the majority of our cases, and the one which needs our attention. There are two modes of onset, sudden and gradual, and this one fact should not be forgotten in making a diagnosis. This statement may seem strange, as the majority of descriptions tend to make one believe that it is always gradual in onset, but in a study of one hundred and ten cases by McCrae 50 per cent. showed a sudden onset.

Considering the clinical course of the disease, it may be divided into three classes. The first of these is the slow progressive type, in which after either an acute or gradual onset, the symptoms slowly advance, joint after joint being involved. In sharp distinction comes the second class, those in which the attacks are acute, and very commonly come on at intervals, and at intervening times, perhaps for many years, the patient may be practically free from symptoms during these intervals, although at length permanent damage is done to the joints. The third class shows features of both, namely, in that they had repeated acute attacks, but with these there was a steady progress, a certain amount of damage being left each time.

Of the symptoms the joint changes are the most prominent. They are polyarthritic, with swelling, tenderness, which is not usually marked, pain, severe at times, with little heat or redness. It shows no tendency to migrate from joint to joint, or to clear up suddenly and appear in others. When a joint is affected it remains so until the acute attack has run its course, leaving the joint somewhat disabled. The disease may here take on the slow progressive type, involving joint after joint, with some amelioration at times, ending in marked deformity, thickening and ankylosis.

Of the other clinical features I wish to speak of the temperature. This is moderate, rarely severe, ranging from 99 to 101 degrees F., and some show practically normal temperatures.

The pulse is accelerated, 90 or more, and is out of proportion to the temperature. These two features, moderate or low fever, with rapid pulse out of proportion to the temperature, which persists even in the most chronic forms of the disease, although the patient may be up and about, in fact, many of them give a history of never being confined to bed, are strong diagnostic features of the disease. Associated with these symptoms there may be general malaise, anorexia, headache and apparent anæmia. The joints affected may be symmetrical or not, this condition varying. The knees are probably most often affected, and next in frequency fingers, hands, wrists and elbows. Others not so frequently affected are the shoulder sternoclavicular, temporo-maxillary and cervical joints. Of the last two named joints, temporo-maxillary and cervical, I would like to state, when these are involved, it is strong evidence in favor of a deforming arthritis, as these are never if at all involved in rheumatic fever. Early atrophic conditions of the muscles is quite characteristic. There is little or no tendency to cardiac involvement. The urine shows little that is abnormal. Albumin may be present, but in small quantities, and usually in aged subjects. Casts have been noted, as also diminution of certain salts, namely, lime, magnesium, the phosphates and also uric acid.

The blood shows no changes except a diminution of hemoglobin, which is not always constant. Probably not sufficient research has been made along these lines to warrant any positive conclusions. Of McCrae's cases 33 showed blood examination, with average hemoglobin of 70.6 per cent. Red cells, 4,468,000; leucocytes, 7,600. A differential count of eight cases showed normal findings. Cabot reports five cases, the only change being a diminution of hemoglobin in two of them. Of the remaining symptoms, such as enlarged spleen, glandular involvement, pigmentation of skin, condition of reflexes, etc., time will not permit discussion.

3. Monoarticular Form.—This is more frequently seen than supposed, and often mistaken for what is known as chronic rheumatism. It is found particularly in knee, shoulder and hip, in the latter location known as, or often called morbus coxæ senilis. Occurs mostly in advanced ages and males. The symptoms usually show pain on motion, distinct limitation of movement, muscular wasting and at times crepitus. In this class a thorough examination should be made for changes in other

joints, although they may be slight. This condition may frequently be confounded with a gonorrhœal arthritis or a tubercular joint.

4. Spondylitis or the Spinal Type.—Two forms are recognized, one with general, the other with local involvement. These cases are usually of the “osteoarthritic type.” It is a form more frequently found in males from thirty to fifty years of age, and usually of gradual onset. The general features of these cases are as follows: The spine is fixed and back rigid, giving the term of “poker back.” Rotation is diminished or lost, and when patient turns his head he turns the whole body. This is especially true when the cervical vertebræ are involved. There is much difficulty in stooping, and the natural curves of the spine are lost. The mobility of the spine is the important feature. This is obtained by having the patient strip to the waist, stand erect with heels and toes together, then have them bend forward, backward, from side to side, or rotate the body, and very readily limited motion in the various directions may be detected. These limitations may be equal in one or all directions, according to the extent of the disease.

Another important feature is the pain and the stiffness. Of the pain I wish to speak particularly. This is frequently reflected to the hip, resembling tubercular hip disease, or along the sciatic nerve, or as chest pains resembling an intercostal neuralgia or myalgia, and lastly, as that of a lumbago, for which it is often mistaken, and treated for such without any relief, so let us not be too hasty in making such a diagnosis as the above, until we have excluded the condition under discussion, for in reality many of them prove to be a spondylitis. There is one other symptom that goes to make the clinical picture complete; that is the emaciation of the muscles of the back and buttocks, which is frequently quite early, and should be looked for in all suspicious cases. The temperature of these cases quite often shows a slight elevation, with little pulse change. The reflexes are usually increased. There is one form of this malady upon which I wish to say but a few words in considering the clinical aspect of the disease. This is manifested in children, and known as Still's disease. From its clinical picture it may be rightly classed with arthritis deformans. Of its prominent features there are three: 1. Arthritic changes of many joints, similar to those of arthritis deformans, with special tendency to periarticular involvement. 2. En-

largement of the spleen. 3. Extreme enlargement of the lymph glands. This condition is usually seen before the second dentition, and more frequently in girls. It has been attributed to tuberculosis, and seen in conjunction with rickets, but considering its manifestations and course, there is no doubt but that it is of a purely infective origin.

In considering the clinical aspect of the disease, I feel that a few remarks on treatment are quite apropos. The results of treatment vary greatly in the individual cases. No matter what course is devised, it seems to have little or no apparent influence on the condition. There are few cases in which some brilliant results have been obtained, even after considerable mischief has been done. Considering everything, however, treatment is far from satisfactory, no matter what method may be employed. Such has been my experience and I think that of many others.

There are three rules laid down by Garrod which should serve as the basis of all treatments: 1. The treatment should be commenced as soon as possible after the appearance of the earliest signs of the disease. (Hence the importance of an early diagnosis of the disease). 2. It must be such as to maintain and increase the patient's strength, and all measures which have an opposite effect or tendency should be avoided. 3. To be effectual it must be steadily continued over a period of months, or even with short intermission for a year or two.

Diet and hygiene play a most important part. It is a mistake to restrict the patient's diet. This point cannot be too strongly impressed. Improvement cannot occur without it. There is loss of weight, muscular atrophy and anæmia. To counteract these, food consumption is the best means. The diet should be mixed, liberal and varied; daily use of meat, fowl, game, fish, eggs and vegetables. Free use of milk and water, and the use of alcoholic beverages, those of the light wines, cautiously. Atmospheric changes and exposure are to be avoided, clothing adapted to the season of the year should be worn. A change of climate is always desirable, one which is warm, dry and with no sudden fluctuations of temperature.

Another important feature is exercise. This should be impressed upon the patient, for rest is prejudicial to his recovery. Patients must be encouraged to help themselves, although this may cause some pain at first. The exercise should be daily, walking, riding, household duties or light dumbbells, with calisthenics.

The various baths have had their advocates, such as electric light, hot sand, mud, hot and cold baths, but without any great success. Other procedures are those of massage, electricity in its various forms, hot air, both general and local. Lastly, the Roentgen ray, which from some late reports has given very encouraging results, and is certainly worthy of a trial.

Local treatment is of little avail and that by drugs is varied. The usual rheumatic remedies give little or no relief, but for the acute manifestations, colchicine will probably give the best results. Several remedies with which I have seen personal results are those of *Calcarea Carb.*, *Iodide of Arsenic*, given over a prolonged period, and *Guaiaacum*. Among other remedies lauded are *Benzoic Acid*, *Actea*, *Racemosa*, *Actea Spicata*, *Pulsatilla*, *Sabina*, *Ledum* and *Ferrum Phos.*, but of these I cannot speak from experience. Of other remedies I would like to speak of the *Iodides* in their various forms, *Potassium*, *Sodium* or *Ferrum Iodide*, frequently supplemented with *Cod Liver Oil*. With *Guaiaacol* I have also seen some very beneficial results. Of the later treatments that have come into vogue those of the *Formic Acid* injections and *Biers' hyperæmic* method have given some brilliant results, especially in the slow progressive cases. In the case of the spinal type the foregoing measures must be rigidly adopted, and the application of a light jacket of some character supplemented, or the use of what is known as a *Taylor brace*.

In conclusion let me impress upon you the early recognition of the disease in its various types; and that treatment alone with drugs, without the usual attention to the adjuvants, especially those of diet, hygiene and exercise, will yield little results.

CHOKED DISE IN EACH EYE FROM BRAIN ABSCESS. A very interesting case at the New York Ophthalmic Hospital, the outcome of a chronic purulent iritis in which there was amnesic aphasia and stupor. The symptoms presented on the same day that the mastoid was exenterated, exposing the dura and the sinus. There being no relief of pressure symptoms, the brain was exposed over the temporal and sphenotemporal region three days later, the patient being so nearly comatose that only external stimulus served to arouse him. From a point $2\frac{1}{2}$ inches inward from the sphenotemporal trepaning there was evacuated about one ounce of thick odorous pus. The case presented nine days after the operation such favorable symptoms that a fatal issue is questioned.—*The Homœopathic Eye, Ear and Th. Journal*.

**THE EVOLUTION OF BALDNESS:
ITS EARLY RECOGNITION AND TREATMENT.**

BY

RALPH BERNSTEIN, M. D., PHILADELPHIA.

Dermatologist to the West Philadelphia General Hospital; Senior in the Skin Section, Hahnemann Hospital Dispensary, Philadelphia, etc.

(Read before the Germantown Homœopathic Medical Society, March 18th, 1907.)

MR. PRESIDENT, MEMBERS AND GUESTS OF THIS SOCIETY: Last fall I had the pleasure of giving a short talk on the skin diseases affecting the scalp, before the Clinical Society of the West Philadelphia General Hospital. At that time I touched lightly upon the question of baldness in its various phases and forms, and regretted I was not enabled to go more thoroughly into the subject, which, I fear, we do not consider as seriously as we might; so that I decided, when I was asked to present a paper before this society, to present the subject of baldness, going more thoroughly into its details. In my paper to-night I shall discuss with you the various steps and stages which take place in the evolution of baldness, from its very beginning, in the early life of youth, until its full development in more mature age.

I shall furthermore give the methods of prevention and outline the routine of treatment. Let me begin, then by stating that I shall not take up your time in discussing controversial opinions as to the cause of baldness, of which there are many, the latest being the development of a poisonous substance in the lungs, which enters into the circulation and thus produces baldness (Parker), but shall limit myself to clinical observations as recorded in the skin sections, of the Hahnemann Hospital Dispensary, and in the Department of Dermatology of the West Philadelphia General Hospital and Dispensary.

In certain children, from ten until fourteen years of age, there is a furfuraceous scaly condition of the scalp, which continues for several years; there is constant exfoliation going on, the scales are dry, fine and powdery in character. There is slight itching of the scalp, and the child takes great delight in making the so-called dandruff fly. There is no falling of the hair now, and this condition is known as Pityriasis Simplex, a simple scaling of the scalp, as it were. Who of us have not

seen, in our earlier days, on the collars of our school fellows just such scales, thickly piled, one upon the other? Who of us have not seen the collars of fellow students at college, thickly covered with just such scales? And who of us to-day, perhaps, do not have just such scales upon our collars and shoulders? Here, then, is the beginning of baldness. Let us collect some of these very scales and put them beneath the microscope, and let us see what will be unfolded to us. Numerous flask shaped bacilli present themselves, the so-called bottle bacilli of Unna, so named, in 1892, and described by Malassez as early as 1874. They vary considerably in shape, usually, however, they have the appearance of a gourd, with a large globular lower portion, a short narrow neck with a clubbed extremity. Its size may reach five microns and even longer, is usually arranged in groups and occasionally appears singly. It stains with the usual dyes, is not decolorized by Gram's iodine solution and grows in ordinary media. Here, then, we have a factor of much importance, and which may have much to do with the later alopecia, and let me state right here that it behooves us, each and every one of us, to correct this condition in early youth with just as much care and attention as we would remove existing comedoes, to prevent acne, if we would spare the bald heads of future generations, especially so if there be a tendency to baldness in the family.

Let us follow onward the process of evolution and see what happens next. About the fifteenth or sixteenth year the squames, which were so dry and powdery in character, at the tenth or twelfth year, are dry and powdery no longer, and they cease to fall, but instead they are thick and yellow and greasy, and now it is that the hairs begin to fall. Gradually at first, more profuse later, sometimes in bunches, and usually worse during the summer time. Here we have a condition known as Pityriasis Steatoides, a fatty pityriasis, occurring diffusely on the vertex, and the temples. The hair, which falls at this time, comes out with its bulb intact, new ones take its place, only to be lost again. We now have a chronic inflammatory condition. There is imperfect cornification, especially about the mouths of the follicles; there is more or less vascular dilation, and the hairs before they fall seem to have a peculiar opaque appearance and lose their lustre. The mouths of the follicles are widely dilated and there is a slight degree of parenchymatous œdema present about them.

Let us now follow on to the third or final stage of baldness. As early as the eighteenth year there is a gradual supplanting of the steatoid pityriasis with a condition of true seborrhœa of the scalp; that is, an increased secretion of sebaceous fat. Sometimes, instead of supplanting a pityriasis steatoides, a seborrhœa may coexist with it, giving a condition which is often wrongly named squamous seborrhœa, and which is really a mixed process. Ere we proceed further we shall express some of the contents of these fatty glands and examine them microscopically, for it is likewise possible that we might see much that would assist us in finding another factor which might also be responsible for baldness.

Having expressed the contents of one of the sebaceous pores,



Fig. 1.—Bottle bacilli. Drawing from specimen obtained in the Skin Dispensary of the West Philadelphia General Hospital.



Fig. 2.—Micro bacilli. Drawing from specimen obtained in the Skin Section of the Hahnemann Hospital.

the same having been washed with ether, and stained with gentian violet, it presents to us beneath the microscope great quantities of very fine rod shaped bacilli, which have a slight resemblance to tubercle bacilli. They are single or united in bundles, or appear in chains. These bacilli are a constant factor in all seborrhœic conditions, are known as the microbacilli of Sabouraud, and whether they might possibly enter as a factor in the causation of baldness it is not possible at this time to say.

To return to the third stage of baldness, it is known that the younger the subject the quicker is the process which leads on to total baldness. If baldness should begin at the eighteenth year, the probabilities are that by the twenty-fifth year there will be a marked condition existing, with a fall of from three to four hundred hairs daily. If the process, however, should

not begin until the twenty-fifth year then the probabilities are that complete baldness will not follow until about the fiftieth or sixtieth year, with a fall of from fifty to sixty hairs a day. As in the condition of pityriasis steatoides, the hairs fall out with their bulbs complete; new hairs follow the same course, until finally there is nothing left but a fine downy growth, which likewise in time gradually disappears, leaving nothing of this once vast army but a bald, shiny top, with perhaps a few odd hairs struggling bravely for existence, and thus we have the final stage in the evolution of baldness.

Now that we have followed the gradual process in the evolution of baldness, let us next consider the factors of importance, which would be of benefit, in the prevention of such a condition, and lastly let us consider the necessary treatment in the three stages of the existing morbid condition.

To consider the question of prevention of baldness, would necessarily be the consideration of the hygiene of the scalp, which is indeed of paramount importance, whether there be an existing tendency to baldness or not, and of which there is so little understood by the laity in general.

Let us begin the prevention of baldness at the very hour of birth. Too great care and attention cannot be given to the scalp of the new-born. Immediately after birth the scalp should be gently oiled with pure olive oil to assist in the removal of the vernix caseosa. And it is the very failure of the proper removal of the vernix caseosa, which causes so much scalp trouble in the later days of the babies' existence. After the eyes and nose and mouth have been attended to, the vernix caseosa should be removed with an additional amount of olive oil. The greatest care and gentleness must be used so that the tender and sensitive scalp should not be injured, and under no circumstance is the fine tooth comb to be used for such a procedure. After the baby's body has been washed, the scalp is to receive its first shampoo. Plenty of warm water and pure castile soap are to be used. If there still remains some of the vernix caseosa, the scalp is again to be oiled, and the shampoo repeated on the next day, when all of the remainder usually is easily removed. Again I must make the precaution under no circumstance is the fine tooth comb to be used.

Daily for several weeks the baby's scalp should be gently oiled. This will prevent the collection of sebaceous matter and will protect the scalp from atmospheric influences. The

scalp should be washed daily while the oil is being applied; when there is a good development of the hair the scalp should be washed but once in two weeks. The scalps of children and adults should not be shampooed oftener than once a month, this depending, however, on the occupation and environment. The pernicious habit of daily wetting the hair in order to comb it is to be absolutely interdicted, not that the wetting is harmful, but that the scalp is never dried, and there is therefore a constant maceration going on; after shampooing the scalp, it should be oiled, being best applied with a medicine dropper, which reaches the scalp directly without saturating the hair, which is quite objectionable to many.

Let us next consider the use of the brush and the comb. Firstly, the proper kind of a brush and comb are to be used. The proper brush has its rows of bristles wide apart, and the individual bristles of each group are longer in the centre and shorter about the periphery. The proper comb likewise has its teeth set wide apart, the ends are round and not pointed, and there is an absence of rough edges to the teeth. There should be two brushes, a stiff one and a soft one. The stiff one should be used the first thing in the morning, brushing the scalp thoroughly, to remove the existing dandruff and foreign matter, and should be continued until a decided feeling of warmth is produced. The soft brush is then to be used to assist the comb in parting the hair. The comb has but one use, and that is to part the hair. It should never, never be used for the removal of dandruff and scales, and the fine tooth comb only for the removal of nits.

Finally, we are well aware of the close relationship which exists between bodily health and hair health; so that it is of just as much importance to carefully regulate the bodily hygiene, and if both are carefully attended to there is no reason why baldness should not be prevented.

Before we can take up the question of treatment we must be able to differentiate between allied conditions. I refer to a differentiation between Pityriasis Simplex and Steatoides, the first and second stages of baldness, and the conditions with which they might be confounded, such as eczema, psoriasis and the atypical form of trichophyton infection (the diffuse form of *Trycophytosis Capitis*).

Let us first consider eczema of the scalp; that is, the dry scaly form. In this condition the scales are not so profuse; they are

large, they are more yellowish in color; there are patches of eczema elsewhere. The patches on the scalp may be limited in outline. There is much more itching, they are not so greasy, and if some of the scales be removed they will reveal a serum like exudation or a reddened oozing surface.

While psoriasis rarely occurs upon the scalp, without being seen elsewhere, there are just such cases which are more or less puzzling. In psoriasis the patches have a tendency to being round or oval, and the larger patches seem to be made up of several smaller rounded patches. The scales are grayish or whitish in character. They are not greasy. On being removed they reveal fine hemorrhagic points, and do not tend to form as quickly as the scales of pityriasis.

The diffuse form of *Trychophytosis Capitis* is rather rare, yet occasionally it does occur, and it is just these occasionally occurring things which should interest us, and for which we are never on the lookout. In this form of *trychophytosis* the microscope will be our best diagnostician, showing the fungus in great profusion. Beneath the scales are to be found numerous reddish papules or points. The scales are not greasy, best tested with the blotting paper; the hairs are apt to be broken off and fragile.

Let us now take up the consideration of the question of treatment, and let us recall the condition of *Pityriasis Simplex*. that dry, powdery exfoliative condition, existing at the tenth or twelfth year, that very beginning of baldness, and this is where it behooves us to become active, if we would spare the baldheads.

If the exfoliation is intense the scalp should first be oiled with salicylated olive oil, ten grains to the ounce, should be applied at night, an oiled silk cap worn, and washed off in the morning with warm water and tincture of green soap, and the following ointment well worked into the scalp daily by parting the hair at one spot and then another until the entire scalp is covered. Oil of cade, one-half ounce, resorcin, grains twenty, sulphur ppt. grains ten, petroleum one ounce. The scalp should be washed every second or third day, until the scaling is lessened, then as needed. As the condition improves, the ointment is used every other day, and finally once a week. Now it must not be presumed that results will be gotten at once. The condition is tenacious and is apt to return, so that the keynote is, keep everlastingly at it. Now, then, with reference to the sec-

ondary stage or Pityriasis Steatoides, which we recall is the condition in which the scales have become heavy and laden down with fat. The working rule here will be, which will apply as well, for the third stage in which we have an added seborrhœa, the more fat the more sulphur is added to the ointment. The second and third stages are treated similarly to the first stage, with the increase of the sulphur in the ointment, and perhaps repeated applications of the salicylated oil to keep the scales and debris loosened and to be removed with frequent washings. After having controlled the existing conditions, I would suggest the daily use of the following as a general stimulative tonic: Resorcin, grs. thirty; Tr. Capsicum, drchs., two; Ol. Olivæ, drchs., one; Spts. Myrciæ and Spts. Vini Recti, aa. q. s. a. d. ounces, six. This makes a simple and effective tonic. Of all the remedies which are suggested for the treatment of the various stages of baldness, clinical experience has demonstrated that sulphur is the remedy pre-eminent, and I should like to state that I have found the solution of soluble chlorinated sulphur, to have given results par excellence, in spite of its intense inflammability. The great objection to its use is the constant odor of hydrogen sulphide. I have at present a series of cases under observation which are being treated with this solution at the West Philadelphia General Hospital Dispensary, and shall be pleased to give a report on the same at some future time.

This being an age in which we want to be shown, and in which we want to know why, if you should ask me, Why salicylic acid? Why tar? Why resorcin? and why sulphur? I would reply, that it is well known that salicylic acid possesses a peculiar action on the skin; in small quantities it acts as a regenerator of defective epithelium, and in larger quantities it has the faculty of loosening the epidermis without setting up an inflammation. It has been used for this latter purpose as herein mentioned.

Tar, because it is of decided benefit in dry, scaly conditions of the scalp, acting as a stimulant and constrictor to the cutaneous blood vessels; resorcin, because its action upon the epidermis, in small quantities, is keratoplastic; that is, it tends to favor cornification and rogulation of the skin, and thus produces hardening; in larger quantities, however, it is keratolytic, thus destroying the skin.

Sulphur, because of its particular action upon the sebaceous

glands, is anti-parasitic, acts as a reducing agent, withdrawing oxygen from the tissues, and favors cornification of the skin. In this respect it is not as powerful as resorcin.

Hand massage, vibratory massage, high frequency currents, faradic electricity are all of advantage in the treatment of the various existing conditions, and last, but by no means at all least, is the indicated internal homœopathic remedy, which has demonstrated more than once its efficacy in the treatment, especially in cases in dispensary practice, where patients just simply would not carry out directions for local treatment. Among the more important I shall mention Kali Sulph., Kali Mur., Mezereum, Kreosot., Phosphorus, Sulphur and Selenium.

In the preparation of this paper the writings of the following authors have been freely consulted: Unna, Macleod, Jackson, Duhring, Sabouraud, Fournier, Hardanay, Kaposi and Bulkley.

THE TREATMENT OF SYPHILIS.

BY

RALPH DEMING, M. D., PHILADELPHIA.

Clinical Instructor of Diseases of the Skin at The Hahnemann Medical College.

(Read before the Homœopathic Medical Society of Germantown, February, 1907.)

EVER since the close of the fifteenth century syphilographers have been diligently searching for the cause of syphilis and a method of treatment that would effectually eradicate this malady from the human system. Clinical observation has taught us that the disease is undoubtedly due to a specific micro-organism, the discovery of which from time to time has been announced. However, conclusive evidence that the micro-organism of syphilis has been found is still lacking. Some years ago Siegel demonstrated a protozoon in the blood of human beings which he found shortly after infection. He was also able to follow this organism through the blood and tissues of rabbits, guinea pigs and other animals after inoculation with human syphalitic virus. Little or no progress along these lines was made until Shaudinn and Hoffman announced the discovery of the *spirochæta-pallida*. This is a delicate spiral body pointed at each end, highly refractile and stains very

badly. The relation, if any, of the *spirochæta-pallida* to Segal's protozoon is not known, but it has been suggested that they may be one and the same bacillus only at different stages of development. As yet all attempts at isolation have been unsuccessful, nor has it been determined to what especial group of micro-organisms it belongs. It has been found in nearly every lesion of acquired and congenital syphilis, but whether this is due to the fact that the *pallida* was mistaken for other *spirochæta*, or, as some observers claim, that the *spirochæta-pallida* is nothing more nor less than nerve fibrils which have been stained remains to be seen.

In spite of these adverse opinions experimental inoculation of animals has helped to establish the *spirochæta-pallida* as the bacillus of syphilis. Monkeys, especially those of the higher type, have been repeatedly inoculated with human virus known to contain the *spirochæta-pallida*, and the symptoms which followed inoculation closely resembled the manifestations of syphilis as found in man, while the presence of the *pallida* could easily be demonstrated in the simian syphilitic eruptions.

The course of syphilis is especially chronic and may clinically be divided into two great types, namely

First. Malignant type or galloping syphilis and

Second. The persistent type.

Malignant or galloping syphilis is at present comparatively rare. Perhaps this is due to earlier and better treatment, and (as suggested by a German syphilographer) to a certain degree of immunity which has been established by our ancestry. However it is true that the average case of syphilis does not show a marked tendency to malignancy, but rather to persistency. By this I mean that there seems to be a predisposition to relapses and to the recurrence of non-destructive lesions which usually simulate some disease of the skin. This is the type which most frequently comes under the care of the dermatologists for a differential diagnosis from psoriasis, eczema seborrhicum, and lupus vulgaris is at times difficult to say the least. Again, we must remember that a syphilitic patient may suffer with some non-specific skin disease, the recognition of which is necessary to appropriate treatment.

Given a suspected case of syphilis then, the question arises, when shall we begin treatment, what shall it consist of, and how long shall it be continued? With few exceptions treatment should not be undertaken until a positive diagnosis can be made,

and this, as a rule, is not until constitutional symptoms develop. The reason for this is as follows: It often happens that the physician believes he is able to make a diagnosis of chancre by the clinical appearance of the initial sore. Both physician and patient are convinced that the condition is specific, and appropriate treatment is begun at once. However, no symptoms having developed in the course of two to six months, the patient becomes doubtful of the diagnosis, and finally asks the question, whether he really has syphilis, and if he may get married. In such a case the physician is in a dilemma, for he is neither able to affirm or deny specific infection, but if he had waited for the development of constitutional symptoms he would have been able to state the exact facts of the case. Again, some primary lesions, which from all clinical appearances are specific, are never followed by constitutional symptoms; therefore, if such a case were at once treated, the patient would have an unnecessary stain put upon him for the rest of his life.

In mercury we possess a drug which has withstood all clinical tests, since it was first employed in the treatment of syphilis. Broadly speaking, the patient should be under its influence for at least two years. This time should be divided into periods of passive treatment and active treatment or cures. A cure consists of the use of mercury from four to eight weeks by one of the following methods: (1) By mouth (2) by inunction or rubbing it into the skin; (3) by deep intra-muscular injection. During this time the patient should undergo at least six cures, whether he shows symptoms of syphilis or not. The first two should be comparatively close together, for it is at this time that the infection is especially active. At least two of the six cures should be by the inunction method, and two by injection. The other two preferably are injection cures, but if circumstances do not permit they may consist of the administration of mercury by the first method. Between cures, passive treatment is begun, and consists of the daily application of mercury to the superficial glands, either in the form of an ointment or the ordinary mercurial plaster. They are treated in rotation; i. e., the right and left inguinal, the right and left epitrocular, etc., only one gland receiving treatment each day.

(1) MERCURY BY MOUTH.—This is the least effective method of employing mercury. It acts as an irritant to the mucous membrane of the gastro-intestinal tract, causing stomatitis, abdominal cramps, diarrhoea, etc., and should be used only

as an adjuvant to the other two methods. When employed it is best given finely divided, as it is more readily absorbed and causes less irritation. The protoiode, as a rule, is most useful, especially in the early stages of the disease, but occasionally some cases show a greater toleration for the biniodide. The protoiodide should be given at first in 1-100 grain tablets, beginning with two tablets after each meal, and increasing one tablet daily until symptoms of salivation appear. It is then withdrawn until all symptoms disappear; then it is again resumed in 1-10 grain tablets, the dose being just short of the maximum dose.

(2) THE INUNCTION METHOD, as a therapeutic measure, is the best, but it has so many objections that it is of comparatively little value in private practice. It is dirty, tiresome and frequently causes an annoying irritation of the skin. Patients who promise faithfully to follow directions while treating by this method, are not always to be relied upon, for it is very easy to skip an inunction now and then, and, unless this method is conscientiously followed out, its therapeutic value is lost. The officinal blue ointment is the form of mercury usually employed. The least hairy parts of the body are chosen for the inunction, such as the inner surfaces of both thighs, the inner surfaces of both arms, and each side of the chest. Each night an appropriate amount of salve is thoroughly rubbed into one of these surfaces for fifteen minutes. It is well to have the patient time himself so as to be sure the required length of time has elapsed. For six nights the inunctions are continued without bathing, and it is not until the seventh night that the patient is allowed to take a bath and rest. This cycle is repeated from four to six weeks, thus constituting a cure, unless symptoms of salivation appear. It is best to begin the first week with a five-gramme inunction, increasing one gramme each week until eight grammes are used each night.

The first week then the following prescription should be ordered:

Ung. Hydrarg. 30.0
Div. in Chart. No. VI.

The next week we increase each nightly application one gramme, and would order:

Ung. Hydrarg. 36.0.
Div. in Chart. No. VI.

If the skin becomes irritated a soothing salve should be applied and another part of the body selected for inunction.

(3) THE INJECTION METHOD, everything considered, is the best. It is scientific, the patient is at all times under your control, and it is applicable to nearly every case. The contra-indications are young children and those suffering with tuberculosis. It is cleanly, easily carried out, and especially suitable when quick results are desired. There is little or no pain in its use when the proper technique is employed, and a certain amount of dexterity acquired by the operator. Occasionally some people will complain of a stinging sensation for a short time at the site of injection.

The needle used for this purpose is best made of platinum one and a quarter to one and a half inches in length, and attached to the syringe by a slip joint, thus facilitating its easy removal. The injections are best made deep in the buttock about one and a half inches to either side of the inter-gluteal fissure and about two inches above the tuberosities of the ischia. The technique is simple. After the parts have been thoroughly cleansed the syringe is held between the fingers just as one would hold a pen and then quickly thrust to its full length deep into the buttock. Now holding the needle between the thumb and first finger of left hand detach syringe. If blood does not flow the syringe is quickly readjusted and the injection slowly made, followed by the application of collodion or a bit of adhesive plaster. If blood should ooze from the needle it must be withdrawn and another place selected, for it indicates that a good-sized blood vessel has been punctured. After injection it is only necessary to keep the needle in a strong solution of bichloride until further use.

The compounds of mercury used in this method are either the soluble or insoluble salts. The insoluble salts must be used with caution, as their absorption is slow and they are apt to lead to cumulative effects. This can be avoided, however, if they are injected in small quantities and at sufficient intervals. Of the insoluble compounds the salicylate of mercury is the best when used in a 10 per cent. solution of alboline and given in doses of from ten to fifteen drops once a week.

I prefer the soluble mercurial preparations, the best of them being the bichloride. It is less dangerous than the insoluble compounds, for it is readily absorbed and undesirable sequelae are rare. It is especially useful when quick results are desired, as it may be given in small doses daily without fear of cumulative effects. It is well to begin with a mild solution in

order to test the patient's susceptibility, at first giving ten to fifteen drops of a 1 per cent. solution which is injected once a week. If no symptoms develop the strength may slowly be increased until a 4 per cent. solution is used. From eight to ten injections constitute a cure.

In conclusion, let me call your attention to the fact that most cases of syphilis are anæmic and have lost flesh. For this reason a diet, consisting of plenty of rare beef, milk and eggs, should be ordered, and if the treatment is effective, the patient will steadily gain in weight.

SOME REMARKS CONCERNING THE VALUE OF BLOOD EXAMINATIONS BY THE GENERAL PRACTITIONER.

BY

W. HOWARD LYLE, M. D., PHILADELPHIA.

(Read before the Homœopathic Medical Society of Germantown.)

TWELVE years ago we knew practically nothing about the blood. In my own college days we were told that it consisted of red and white cells and plasma; and there our knowledge stopped. Of the varieties of leucocytes, of the changes in the red cells, of the parasites which make the blood their habitat, nothing was known. Though the blood diseases had already been described, more as the result of observed gross changes than of microscopic investigation, such a thing as the need of blood examinations to determine diagnosis was undreamed of.

Within the last decade, however, and particularly with the last five years, the invention of instruments of precision and their use in the hands of careful investigators in Europe and America, has let in a flood of light upon the pathology of the blood, and we now know that in many cases a knowledge of the hemic conditions is positively essential to correct diagnosis and rational treatment. Yet the technique of blood examination is exacting, and I am ready to acknowledge that it is impossible for the general practitioner to make complete blood examinations in the same routine fashion that he does urinalysis; and so I have ventured tonight to indicate briefly some of the more essential procedures with which he should and can be familiar,

omitting the more complex and technical processes utilized by the specialist in hæmatology. First let us inquire, what are the diseases in which examination of the blood is essential to diagnosis? These are:

1. The Anæmias.—In them blood examination is necessary in order to determine whether the case is one of chlorosis, of anæmia secondary to some grave condition elsewhere, of so-called primary pernicious anæmia or of leukemia.

2. Malaria.—Malaria is a much abused term. It is one loosely applied to a variety of neurasthenic conditions and also chills and fevers of every description, and even when they are due to septic and tuberculous conditions.

For the patient's own sake, if not for the doctor's, it is imperative that no such diagnostic error be committed and with our present knowledge such blunders are inexcusable.

3. The differential of certain of the infectious diseases. Some of these are accompanied by an increase in the number of leucocytes, others are not; and for both diagnostic and therapeutic purposes it is highly important to discriminate among them. Notable examples of this are seen in septic endocarditis and other suppurative conditions, which are readily distinguished from typhoid, for example, by their high leucocyte count.

Let us consider the simplest form of anæmia, Chlorosis. This variety is almost uniformly benefitted by iron, and if the physician before prescribing that remedy would stop to find out whether it is lacking in the blood and therefore really needed, how much more accurate and satisfactory his prescription would be. I venture to say that iron is not indicated in one-tenth of the cases for which it is prescribed; and on the other hand, many chlorotic young girls are permitted to drag through months of suffering because their physician does not recognize the deficiency of, and need for this important element. While it is frequently possible to form a general idea of the degree of anæmia by inspection, i. e., by noting the "color" of the patient, it is a well-known fact that not every pale face denotes an anæmic condition. Whenever special accuracy in examination is necessary or results for comparison are desired, recourse must be had to special instruments which have been devised for the purpose of determining the amount of hemoglobin. These are known as hemaglobinometers or hemometers. Of these instruments, the one constructed by Dare is undoubtedly the most

convenient, and it has largely replaced those of Gowers, Van Fleischl and others. Another method, less accurate, however, than Dare's, but which still can be relied upon for quick and ready determination by the general practitioner, is the Tollquist Hemoglobin Scale. Cabot has said of this that it makes hemoglobin estimation no more of an undertaking than feeling the pulse.

If, however, anæmia is present in an older woman or in a man, and we can detect no cause for it (such as a malignant growth or advanced nephritis) and we therefore are led to think that it may be a primary anæmia of pernicious type, can the general practitioner diagnose it without the aid of an expert? Unquestionably; let him make a smear by touching a clean slide to a drop of blood and then spread it out by means of a second slide. Let this dry in the air, then pour over it some eosinate of methylene blue solution, and in five minutes wash in ordinary tap water. Then examine the film under high power, looking particularly for distorted red cells (poikilocytes), nucleated red cells (necroblasts) and for abnormal white cells, especially myelocytes. If these are found, the diagnosis is fairly positive.

The early appearance of granular degeneration of the red corpuscle in cases of lead poisoning, even before subjective symptoms or other corpuscular changes in the blood are noted, gives us a valuable sign in the diagnosis of this condition. While looking for these, the observer may be struck with the proportionately large number of leucocytes, and he may note that there are many myelocytes or lymphocytes. Then at once he will be on the track of that rare and often unrecognized disease, leukemia.

There is no reason why even the inexperienced should not recognize the abnormal cells and readily differentiate them from the normal. Their appearance is distinctive, and in almost every modern work on diagnosis they are finely illustrated. It is a simple matter to work over the microscope with the book lying open at the elbow, where the picture can be seen whenever an unusual cell needs identification.

As to malaria. I have already spoken of the way the term has been abused. Not only have many neurasthenic and tired patients been told that they "have a touch of malaria," but serious diseases, such as tuberculosis and septicemia, have been allowed to drift into a fatal issue because their recurring chills

were vaguely ascribed by a careless practitioner to this much-abused condition. Now, nothing is easier to recognize, in this climate, than is malaria. The irregular estivo autumnal form is never seen here except in recent arrivals from the tropics. Our own cases are almost all tertian, though a quartan occurs at rare intervals. The periodicity, the chill, fever and sweat, followed by a day of complete intermission, often makes the diagnosis obvious at a glance. But there is only one sure way to avoid blunders, and that is by looking at the blood. Select a time within an hour or two of the chill and secure some of the blood on a slide. Then, while it is still fresh, examine it under high power. Look closely at the red cells, and presently you will find one with a clear body within it; and this clear body possesses amœboid motion. Or perhaps, instead of being clear, it will contain tiny dots of brownish black pigment, and these dots are seen to be in rapid motion. This is the plasmodium, and you are in no further doubt as to the nature of your case.

Finally, let me briefly refer to leucocytosis as a means of differential diagnosis. As you know, certain diseases, such as tuberculosis, typhoid and malaria, have uniformly low leucocyte counts; while others, such as pneumonia, erysipelas, malignant endocarditis and all the septic and pyemic conditions show a more or less striking increase in the number of white cells. Now these diseases are in their early stages differentiated by ordinary methods of diagnosis only with great difficulty if at all. For instance, malignant endocarditis is repeatedly mistaken for typhoid, and so is septicemia. Yet if the physician will but give a little practice to counting the white corpuscles, he will have an added means of differentiation that may clear up for him, as it has often done for others since the introduction of this expedient, just such a diagnostic puzzle.

There is one more differentiation, as to the possibility of which some doubt exists and a great deal of controversy is at present going on, and that is between a catarrhal and a suppurative appendicitis. The first, could we but know that it alone was present, is safely treated medically. The second invariably demands surgical interference. It seems to be settled now that a mere increase in the number of leucocytes in the blood does not prove that suppuration is beginning. But Simon, of Baltimore, has made a further suggestion and one which, if confirmed, may revolutionize our procedures in appendicitis. He

claims that the occurrence of suppuration is attended, not only by an increase in leucocytes, but by a virtual disappearance of the eosinophiles, which are normally present in a proportion of about 2 per cent. Should this statement prove to be correct, it will be possible to say positively that this case demands operation, and that one does not. Moreover, it will make it possible to decide in cases of typhoid whether perforation has occurred, and so the surgeons may be permitted, by early recognition of the perforation, to save lives which otherwise would be lost. Any one of you can with a little practice learn to distinguish the varieties of leucocytes.

For the purpose of counting the leucocytes it is necessary to prepare and stain a film as already directed, and to count one field after another until 100, 500 or 1,000 consecutive leucocytes have been marked down to their respective classes. This differential counting is tedious, to be sure, but not difficult; and surely half an hour's work is not too much to give to a question of such importance.

I have spoken only briefly and hurriedly as to these important uses of blood examinations, but I hope that what has been said will develop interest in these lines of research and lead you to employ and utilize the invaluable information furnished by the simple procedures herein outlined.

To illustrate the importance of these methods is positively clearing up the diagnosis in some doubtful cases, I have selected from my records, and here append, the histories of three cases which serve well to show how a blood examination can convert what would at best be but a mere guess (if, indeed, the nature of the trouble were suspected at all), into a scientific certainty. And with these as examples we will doubtless be convinced that we can ill afford to neglect such certain and easily obtainable data for the interpretation of some doubtful and perplexing medical problems.

Case 1.—Male at 30. Fairly good health, excepting for what he termed "bilious attacks" occurring at frequent intervals during the last few years. With these so-called "bilious attacks" he suffered from vertigo, languor, drowsiness, headache, nausea or gastric unrest, chills or chilliness, a condition culminating in vomiting first of undigested food, then of mucus and bile. With the attacks then were epigastric pain and tenderness, moderate fever and accelerated pulse. The attacks were severe and convalescence slow, attended with a mild de-

gree of jaundice, considerable eructations, flatulency and constipation. During the last attack (which was multiple in character), the above described symptoms persisted in their severity for three days, then the temperature and pulse became normal, remaining so for five days, with a persistence, however, of the gastric disturbances. At the end of this time there was a recrudescence of the symptoms, making them, if anything, more severe than at first. During the following three weeks there occurred at irregular intervals similar paroxysms of varying intensity, chills or chilliness, followed by fever, ranging from 101 to 104 degrees and persisting with more or less remission for twenty-four to forty-eight hours, then gradually falling to normal or subnormal only to resume its upward flight after an intermission of a few to twenty-four or thirty-six hours. The retching and vomiting were of extreme severity, preceded and accompanied by excruciating epigastric pain, causing the patient to cry out in his agony. Epigastric tenderness was early a prominent feature, the point of greatest intensity later being centred in the region of the gall bladder. No palpable tumor could here early be made out, but toward the close of this period a small rounded tumor moving to and fro with respiration could be seen on inspection. The abdomen, at times nearly normal, became markedly distended and the stools pale yellow or clay colored. Those following the paroxysms were extremely offensive. Only very slight enlargement of the liver or spleen was demonstrated either during or following the acute manifestations. A normal temperature, remaining for a period of five days, was succeeded by another explosion. Operation was advised with the concurrence of consultants, and finally consented to and performed. The gall bladder was found to be slightly enlarged, injected and filled with thick viscid bile, which, as the cystic duct was approached, became gelatinous in character and impregnated with sandy material, but no gall stones. The patient rallied well from the operation, and, barring a slight rise of temperature and the customary severe pain and gastric disturbance attendant upon gall bladder operations, made uneventful progress until the eighth day, when the same old paroxysms recurred, only less severe in character. At this time I saw the patient and examined the blood with the following results:

Hemoglobin, 49 per cent.

Red corpuscles, 3, 120,000.

White corpuscles, 3,600.

The differential count being:

Lymphocytes, 39 per cent.

Mononucleas, 21 per cent.

Polymorphomiclear, 39 per cent.

Basophiles, 1 per cent.

In making the differential count I found the red corpuscles to be normal in size and shape, the cells taking the stain well, but there appeared in the centre of the red cell a peculiar slit-like appearance; in some cells this marking was not central, but nearer to the edge of the cell. This did not resemble the hyaline form found early in malarial fever, but appeared like an actual opening, and failed to show the slightest sign of staining, like the rest of the cell. On account of this peculiar condition, which I confess was unique to me, I advised the administration of quinine with the result that the case promptly recovered and had no further attacks. I regretted the lack of opportunity of making a subsequent re-examination of this blood.

Case 2.—Mr. T. at 28. Well until four weeks prior to this record, when he complained of feeling tired on the least exertion. There was loss of appetite, constipation and headache. On account of these symptoms he took a short vacation for a week, going to Haddonfield, N. J., returning home in the evening to sleep and going back early the next morning. Failing to improve under this strenuous vacation, he consulted his family doctor, who found the temperature to be 103 degrees F. and that there was a flushed face, headache and marked prostration; and upon further examination there was found much distension of the abdomen with gurgling and tenderness on left side. The spleen was slightly enlarged, skin moist, no chills or chilliness. Wedal reaction negative. The next day he complained of feeling cold, but without chills; the temperature then was 104 degrees F.; on account of the above symptoms the physician told the family that it was no doubt a case of typhoid fever. At this juncture I was asked to see the case, and upon examination of the blood found evidences which demonstrated that it was a case of malarial fever of tertian form. Upon administration of quinine the patient promptly recovered without the slightest recurrence. In reference to this case, it is of interest to note that he did not have a chill prior to the prescription of quinine, but soon after the first dose there was a severe chill, the only one he had.

Case 3.—Dr. G., æt. 38. Dentist. Has been subject to hay fever for years. For last three years complained of a progressive increasing weakness, which would appear after the slightest exertion. One year ago, on account of the extreme weakness, breathlessness, etc., he gave up his work. After that time the above symptom increased, together with marked anæmia, and the patient at the time of this record had been in bed for three months under the care of Dr. J. Madison Taylor, with little or no improvement in his condition. The diagnosis given on the chart was Addison's disease. By advice of a friend he called in Dr. William C. Goodno to consult with Dr. Taylor, to which he consented, but failed to appear on account of being called out of town. Dr. Goodno, upon examination, found a very weak patient, there being great debility, marked pallor and various dyspeptic and other symptoms. There was a double aortic lesion, with marked hypertrophy of the heart, but at the same time this organ was fairly competent, and, in the opinion of Dr. Goodno, was not a great factor in producing the general condition. His history narrates that of late he has had many queer sensory conditions of the legs, much formication. Sensation was practically normal, as also were the reflexes. By request of Dr. Goodno, I saw the patient and a blood examination showed an extraordinary reduction in the number of red cells, 1,210,000 per c. m. m.; and the Dare's hæmometer showed 27 per cent. of hemoglobin. There was much variation in the amount of hemoglobin in individual red cells, some showing more and some less than the normal amount thus seemingly making up an average. There was marked poikilocytoses, and an occasional macrocyte and microcyte, as well as nucleated red and shadow corpuscles; in a word, the case presenting the ordinary diagnostic picture of pernicious anæmia. White corpuscles, 6,800. The differential count in this case shows the following percentage of white cells:

Polymorphonuclear, 58 per cent.

Lymphocytes, 22 per cent.

Mononucleas, 10 per cent.

Megaloblasts, 10 per cent.

Normoblasts, a few.

Polychromatophilia and granular degeneration marked.

The last I heard of this patient, there had been some improvement in his condition, but he had not been able at all to resume his work.

I present these three cases out of a large number without further comment other than to say that in any of them, diagnosis was clearly impossible or at best only a matter of inference, without a blood examination, and that the examination of the blood instantly and unmistakably cleared up all possible doubt as to their nature and thereby greatly facilitated the institution of rational treatment.

THE CAUSES, DIAGNOSES AND REFLEX SYMPTOMS OF NASAL OBSTRUCTION.

BY

H. S. WEAVER, M. D., PHILADELPHIA, PA.

(Read before the William B. Van Lennep Club.)

IN preparing a paper on so important an organ as the nose, one must recognize the abuse and neglect which humanity in general force upon that part of their anatomy. How few people in the hustle and bustle of active life seem to realize the important function the nose performs in the building up and sustaining of a healthy human organism. To have a healthy, robust constitution, an active mind, sound judgment, retentive memory, good moral character, in fact, all the essentials, which collectively form the ideal being, one must adhere closely to nature's fundamental principles or laws governing the most vital function for the maintenance of life, namely, respiration.

When God created man He made him with a perfect nose, so that the respiratory function could be properly performed, and unless some abnormal condition exists, which prevents free nasal respiration, the child immediately without instruction from attendant or nurse begins life by inhaling and exhaling through the nose as nature intended. What simpler, easier and more natural method could we have, and yet, how many fail to observe this, one of nature's most essential commands? Deviate from this law and you sacrifice correspondingly in health and comfort.

From the scientific study of rhinology as done by the specialists during the past ten years, our knowledge of intra-nasal

disease has been very materially increased and by this advancement we are enabled to properly diagnose and treat many nasal diseases, which prior to that time were unrecognized and simply the crudest kind of palliative treatment instituted for relief.

Washing out the accessory sinuses of the nose for acute and chronic sinusitis, by intra-nasal douching, was thought impossible, but now under our auscult technique it is done with perfect impunity, and many cases of chronic nasal catarrh and chronic conjunctivitis are cured by this method of treatment. I recognize the fact that rhinologists, as well as surgeons, gynecologists, neurologists and all the specialists may become too enthusiastic upon their special work and attribute all the patient's symptoms to an intra-nasal deformity, an inflamed appendix, a diseased tube or ovary, syphilis or hysteria.

Patients become faddish in all lines of work and consult physicians because some member of the family or friend was treated or operated upon for one of the above conditions. Physicians who are not very careful may subject themselves to harsh criticism by allowing the patient's fancies to overrule his better judgment.

It seems to me that this is especially true in the treatment of nose cases. Patients not infrequently consult you and insist upon having an operation for some slight thickening or intra-nasal deformity, which, had they never known about it, would never have given them the slightest annoyance.

Operating upon the nasal cavity without some definite object in view except the obtaining of a fee, cannot be too strongly condemned, consequently accurate diagnosis of all nasal conditions must be the first step in the treatment of intra-nasal disease. Large experience both in hospital and private practice associated with close observation of all cases, will enable one to more clearly and accurately outline what is best to be done for these conditions. Different diagnoses made by equally good and competent physicians are sometimes made, but had the examinations taken place under similar conditions, probably the same conclusion would have been reached with some slight change in the phraseology, and should the opinions differ, protect and respect a brother physician's opinion and avoid medical bickering which so disgrace our profession. "With malice towards none and charity towards all" should be a physician's motto.

In taking up the causes and diagnoses of nasal obstruction allow me to very briefly review the gross anatomy and physiology of the nose, so that we may better understand the normal relations as to position and size of the various bones and cavities within that organ.

The outward formation of the nose may be perfect and yet be entirely useless for the physiological function for which it was intended, due to abnormal conditions found within.

The external nose is formed above by two nasal bones articulating with the nasal process of the frontal bone, and the two nasal processes of the superior maxillary, and below by the two alar cartilages, upper and lower, with the sesamoid cartilages underneath.

The cavity is divided into the right and left nares by the bony septum above the cartilagenous below. These parallel channels are divided into the vestibule, nasal fossa proper and postnasal space. The vestibule includes the space from the outer opening up until the cartilagenous construction is reached. The lining membrane contains sebaceous and sweat glands, and resembles more or less that of normal skin, and has a plentiful supply of cilia, which cleanses the air as it passes into the fossa proper.

The nasal fossa proper includes the space from the vestibule to the oval opening into the postnasal space and is divided into the inferior middle and superior meati. In this fossa are situated the three nasal bones, inferior, middle and superior turbinates.

The inferior turbinate extends nearly three-fourths of the length of the cavity and is attached to the outer wall of the canal. The middle is seen higher up and begins farther back in the nose. The superior is situated high up in the attic chamber and can only be seen by posterior rhinoscopy.

In studying nasal obstruction we can classify their origin into conditions resulting from the bones, cartilages, mucous membranes and unusual or unclassified causes.

The most prevalent form of nasal obstruction having its origin in the bones is from fracture, with displacement of the fragments. It may involve the framework of the nose, but the most frequent location is the septum. When the external bones are broken usually the deformity is at once apparent, even to the untrained eye, and medical advice is sought as soon as possible, but, when the septum alone is fractured, there may

be no external evidence of the serious condition within the nose; consequently many fractures with displaced fragments are allowed to heal and when examined later by a rhinologist and questioned as to traumatism being the cause of intra-nasal deformity, a negative history is obtained. The above history is especially true in fractures occurring in the very young or up to the age of puberty.

These deformities at the time of injury, and soon after the inflammatory symptoms have subsided, may not seriously interfere with the respiratory function, but by the healing process, sufficient callus is thrown out, to completely close the passage, so that normal breathing becomes impossible until surgical interference corrects the deformity. I do not wish to convey the idea that I favor operative interference in all cases of nasal deformity. Nature is a very valuable assistant, and if not interfered with will correct many of the smaller defects during the stage of development, at the age of puberty; but, when the obstruction is of sufficient size to render the nose a useless organ before puberty, operation is the only alternative.

If not done, the habit of mouth breathing becomes firmly fixed and the nasal fossa does not sufficiently develop to properly perform the respiratory act; consequently mouth breathing becomes a fixed habit for life and one of our most vital organs becomes more ornamental than useful.

Congenital malformation of the nasal bones may give rise to nasal obstruction, but this is of rare occurrence. Hypertrophy of the nasal septum resulting from disease, or injury to the pereostium not sufficiently severe to cause a fracture, may give rise to the formation of sufficient callus to form an exostosis or ecchondrosis and materially interfere with the physiological function of the nose.

These formations usually occur near the anterior end of the nose, either upon the floor or near the base of the septum, and unless of sufficient size to cause pressure or damming back of the nasal secretions, they give rise to little or no trouble, except interference to nasal respiration. The turbinals may be enlarged or displaced, or may undergo a cystic dilatation and interfere with the respiratory act.

The conditions within the nose capable of producing obstruction, arising from the mucous membrane and pereostium, are in point of frequency about as follows: hypertrophic rhinitis, postnasal adenoids, nasal polypi, specific gummata, vascular growths and malignant tumors.

Hypertrophic rhinitis is probably one of the most frequent causes of nasal obstruction. It is usually found in young adults, but all ages and both sexes are the unhappy possessors of this disease. The symptoms usually complained of are a stuffiness of the nose and a profuse nasal and postnasal discharge of mucous, which in the severer cases becomes very annoying, filling many handkerchiefs during the course of twenty-four hours. The obstruction shifts from side to side, and not infrequently is of sufficient severity to completely block both sides, compelling the patient to breathe through the mouth. The suffering in some of these cases is out of all proportion to the tissue changes found, probably due to the neurotic element in the patient. The mind is allowed to dwell upon their suffering, and operation or palliative treatment, which offers the slightest relief is eagerly accepted.

A word of caution may not be out of place just here in reference to the indiscriminative use of sprays containing cocaine. Do not give or allow patients to use them. The suffering, especially in highly neurotic patients, from nasal obstruction is severe, and a drug like cocaine, which will give prompt relief, becomes a very dangerous ingredient to add to a prescription that can be used *ad libitum*.

Take a casual glance at our own profession and see the number who are addicted to the drug habit, and if those who know full well the evil effects of drugs, when misused, cannot withstand the temptation of using them upon the slightest indications of suffering, how can we expect the laity to refrain from using a prescription which gives almost instant relief if we place it within their reach? Many a life has been ruined by the drug habit acquired in this way.

By observing the symptoms and a local inspection of the interior of the nose diagnosis of hypertrophic rhinitis becomes easy. The mucous membrane over the turbinals is swollen and has a grayish tint; it can be compressed, but when the probe is removed soon returns to its former position.

By applying adrenalin chloride or a 5 per cent. solution of cocaine to the whole interior of the nasal cavity the mucous membrane contracts and the true size of the turbinals and nasal fossa can be obtained.

Postnasal Adenoids.

Probably no one disease in rhinology has received more attention than the study of postnasal adenoids, and I am thor-

oughly convinced that the next generation will be freer than the present from oral, catarrhal and all respiratory troubles as a result of this advancement. It is essentially a disease of childhood, occurring usually between the ages of three and twelve years, but may be found at any age from a few months to forty-five years.

Heredity, no doubt, is an important factor in the etiology of this affection. Often several cases occur in the same family, due, in all probability, to the inherited diathesis, or, possibly, exposure to the same unsanitary conditions. The acute infectious diseases play an important part in the development of adenoids. Parents will frequently give a history of the child breathing normally through the nose, until shortly after an acute illness in which the patient suffered from a very high fever for some days, when the little one more or less suddenly developed some obstruction to nasal respiration and is compelled to breathe through the mouth. Adenoids are a true hypertrophy of normal histological element of the mucosa in the vault of pharynx and adjacent parts.

The symptoms of a typical case of adenoids are so characteristic that if once recognized, can never be forgotten. The pinched facial expression, the open mouth, shortened upper lip, protruding incisor teeth, a broadening and flattening of the nose, with lines running from the alæ nasi to the corners of the mouth, dulled expression from the eyes, the sluggish, inactive lackadaisical unresponsive conditions and actions, all of which are so foreign to healthy children who enter into all sports with a certain amount of energy and vim so characteristic of young life.

Alterations in the voice become apparent, the extent depending upon the size and the location of the growth. It is characterized as a dead non-resonant voice, with marked nasal intonations, similar to one suffering from a severe cold in the head. To have pure ringing tones for speaking, as well as singing, the dome or arch of the naso-pharynx must be symmetrical, hard and resonant, and in adenoid diseases these growths destroy the normal contour of the pharynx, filling it with a soft, irregular mass, with no resonant quality; consequently the voice becomes the dead, unnatural one which is almost pathognomonic of the disease. Mouth breathing is a prominent symptom found in nearly all cases. In most of them it is constant and in others only at night, or during acute colds. When the

growth is large the patient breathes constantly through the mouth, but when small and situated high in the vault, the voluntary muscular effort is sufficient to enable nasal respiration during the waking hours; but from the relaxing influence of sleep, the muscular effort is decreased, thereby the breathing becomes labored and the mouth opens to allow sufficient air to enter the lungs through the channel of least resistance.

The diagnosis of adenoids is not difficult. The pinched anxious facial expression, deafness, discharge, altered voice, mouth breathing, cough, acute colds and ill-nourished constitution of the child is usually sufficient; but a positive diagnosis cannot be made until the finger or rhinoscope reveals the presence of the growth.

In a series of 204 cases which I operated during the years 1905 and 1906 in hospital and private practice I find that 119 were under ten and 85 over ten years of age. The older the patient the less liability for a recurrence to take place after removal. When these growths are found in adults I firmly believe they have been there since childhood and only from an acute inflammatory process in that region have renewed their former activity, necessitating an examination of the throat and the discovery is made.

Nasal Polypi.

The general symptoms resulting from nasal polypi are very similar to those from other obstructive diseases of the nose. It is not an uncommon occurrence to have patients sent to the hospital and to our private offices to be operated for nasal polypi, who have no signs of the disease, the obstruction being entirely due to a pseudo-hypertrophy of the inferior turbinate. The differential diagnosis is easily made, providing the physician has a sufficient knowledge of the normal interior of the nasal cavity.

A pseudo hypertrophy or relaxation of the mucous membrane over the turbinates, pits upon pressure and cannot be moved from place to place by a probe. By applying adrenalin chloride or 5 per cent. solution of cocaine locally to the parts a contraction takes place and the normal outline of the bones can be readily ascertained.

In nasal polypi the growth is quite movable, is attached by a pedicle, and cocaine and adrenaline have little or no effect upon the size of them. The attachment is either to the outer

wall of the nose, the middle turbinate or above in the ethmoid region.

It is essentially a disease of adult life, but occasionally it is found in children. I saw one case under ten during the last winter. This boy had a large anterior nasal polyp and two large ones extending posteriorly into the naso-pharynx.

In addition to the nasal polypi in the postnasal space he had a large adenoid growth, which combined with the polypi completely stopped nasal respiration.

This case alone will show the great necessity for accurate diagnoses before attempting operation. Had I made a diagnosis of adenoids alone and started the operation for a simple adenectomy, the probability is that I could not have completed my work in one operation for want of proper instruments.

Nasal polypi are usually multiple. I have here a specimen removed from the right nostril of one of my patients. This will show the amount of tissue which can be picked in a small cavity like the nose. This patient, a woman over 70, came to my office for eye treatment. She complained of a gradual loss of vision in her right eye and a chronic conjunctivitis in both.

Her general health was very much impaired and my first thought was that this woman is suffering from a malignant disease. She was breathing through her mouth and had a pulse of 140, no temperature, no appetite, could not sleep and her general expression as you looked at her was one of suffering.

Upon examination the right nostril was found to be completely filled with a soft growth, resembling a mucous polyp. Her general debility, the enormous growth, the offensive discharge, and age of patient all pointed towards malignancy. I advised a thorough cleaning out of the right nasal cavity, and what you see in the bottle is the result of the operation. In a patient over 70, with a pulse of 140, you can readily see the operation was not done under the most favorable circumstances. I asked Dr. Hartley to go with me and keep a close watch of her pulse. I used a plentiful supply of adrenaline locally, then followed by a 4 per cent. solution of cocaine and removed as rapidly as possible all the tissue in the nose. When the operation was over her pulse had dropped to 120 and had a better quality. She was put to bed for the balance of the day, a cleaning wash prescribed to be used until the discharge ceased. The improvement in her general health was very rapid and to-day she is well as most people of her age, with a pulse rate of about 90.

I mention this case to show the systemic infection which can take place by the absorption of pus into the system from lack of proper drainage. The rapid pulse, general debility and all the symptoms which pointed towards malignancy in the case disappeared very rapidly as soon as free drainage was established.

The acute infections and contagious diseases may give rise to temporary nasal obstruction as seen in cases of nasal diphtheria or fibrinous rhinitis. Very troublesome nasal and post-nasal synechia have followed bad cases of diphtheria, which have involved the nose and postnasal space.

Nasal gummata or the tertiary manifestations of syphilitic lesions in the nose come on very insidiously and the symptoms are indistinct and ill-defined. They usually appear in the septum or upon the floor of the nose, but may be found in the turbinates or postnasal space. If seen early the mucous membrane over the swelling appears normal, and unless both sides of the septum are carefully examined it can easily be mistaken for a deflected septum. One or both sides may be involved, and the first symptoms which direct attention to the nose will probably be obstruction to breathing, followed by a deep boring pain in the nose, later discharge which becomes bloody and offensive as ulceration takes place. The diagnoses may be exceedingly difficult, but they usually occur in bad cases of syphilis, consequently the concomitant signs of the disease are readily detected. Gummata show a decided tendency to break down in the centre and during the inflammatory stage can be differentiated from abscess by having a more solid base.

In suspected gummata, as well as all suspicious tumors of the nose, a good, safe and practical rule is to first try the iodide of potassium in substantial doses and wait results before more heroic measures are instituted.

Malignant tumors of the nose are comparatively rare as compared with the mucous polyp, and when found are either sarcoma or carcinoma.

The nasal involvement is usually secondary, the primary lesion originating in one of the accessory sinuses, either the antrum or ethmoid cells. Pain of a neuralgic character along the fifth nerve is an early symptom. Bleeding from the least manipulation and a discharge of offensive pus from a nostril filled with a rapidly increasing tumor should always be regarded as pointing towards malignancy. Rapidly increasing

tumors of the nose in either old or young patients, which resist the iodide of potassium treatment, should always be watched very carefully, even when the nose is the seat of primary lesion. The color is livid and the growth soon shows signs of involving surrounding tissues.

The unusual or unclassified conditions giving rise to nasal obstruction are small undeveloped nares, synechia, cicatricial contraction, abscess, foreign body in the nose, congenital malformation and congenital occlusion.

Small undeveloped nares are quite frequently found and give rise to many reflex bronchial symptoms. Many patients from the lack of proper training early in life are allowed to cultivate the habit of mouth breathing, and from lack of use the nostrils do not sufficiently develop to permit free uninterrupted nasal respiration. The relief obtained from treatment is usually not very flattering, and these patients are compelled more or less constantly to breathe through the mouth.

Synechia from operative interference or ulcerative disease may take place and partially or completely close the nostrils. Cicatricial contraction following extensive sloughing in cases of tertiary syphilis, diphtheria or typhoid fever, sometimes occur and completely destroy the physiological function of the nose.

Nasal obstruction resulting from abscess or foreign bodies in the nose is only temporary and is caused by the swelling of the surrounding tissues.

Congenital malformation and occlusion are very rarely found, and present a typical history of mouth breathing from birth. The child cannot nurse and must be fed with a spoon.

I had a very interesting case during the last few months, illustrating this variety. Miss S., aged 16, who gave a history of mouth breathing from birth, was examined under ether and found to have a complete bony occlusion of the postnasal space. The thickness of the bony obstruction is about one-half inch. By anterior rhinoscopy the interior of the nose appears entirely normal as to size, but is constantly filled with great quantities of thick, yellow, ropy discharge, which she is unable to expel. She presents all the typical symptoms, in an aggravated form, of one suffering from nasal obstruction. She has a lateral curvature of the spine, the typical facial expression of a mouth breather, the deafness, mental deficiency, stunted growth, a general tubercular appearance, and all the symptoms of a

mouth breather in an aggravated degree. In this case her mental and physical development have suffered as a direct result of her deformity, and her physical wreck is the best that nature could provide for her.

The many harmful results of nasal obstruction upon the general health of patients should be vividly pictured to physicians and laity, so that relief may be obtained early, before permanent changes have taken place. When these conditions are allowed to go on indefinitely the organs undergo irreparable changes and many times relief is sought when it is not to be found.

The results of nasal obstruction upon the respiratory tract are probably the most apparent. The inhaled air should reach the lungs, when it passes through the normal channels, cleansed from dust and sufficiently heated and moistened to cause little or no irritation to the delicate membranes lining the bronchial tubes and air cells; but when inhaled through the mouth, it is neither cleansed, heated nor moistened, consequently gives rise to a chronic congestion of all these membranes. All these cases present about the same clinical history with varying degrees of intensity corresponding to the extent of nasal obstruction. The symptoms in typical cases are the open mouth, protruding teeth, more or less constant cough, flattened or sunken chest walls, prominent sternum, shallow respiration, stooped or round shoulders, pale and anæmic, pinched facial appearance, dulled expression from the eyes, mentally sluggish, presenting many symptoms of mental insufficiency. Many of these patients present more or less a tubercular appearance. The above symptoms may seem overdrawn, but should you visit one of our public schools and enter one of the class rooms and look around, you will see many just such cases. I am glad that the present method of school examination by the various physicians is fast helping to overcome this disease in the younger children. Many of these cases are sent home with a note to the parents to have the child examined for some nasal trouble. In some cases this request is immediately complied with and the child's true condition recognized and remedied, and the former sluggish, unresponsive child soon develops into one of the brightest and most active in the class. Many of the postnasal catarrhs, so frequently found in adult life, with the constant dropping of mucous into the throat can be traced to early nasal obstruction, which nature has relieved by absorption and the

extra development after age of puberty, but not till other changes have taken place, which tax the physician's skill, and do not respond to medicinal or local treatment.

Bronchial asthma may be caused by nasal stenosis or pressure, and relief will not be obtained in these cases until the pressure within the nose is relieved.

I have seen a number of such cases. The patient presents few if any nasal symptoms, simply complaining of bronchial asthmatic attacks with almost constant cough, which do not yield to treatment until the pressure between the turbinate bones and septum is removed. In two of these cases the pressure was from a polypoid thickening on the anterior end of the middle turbinate and when this was removed the attacks ceased almost immediately. It seems to me that in all cases of persistent spasmodic bronchial irritation the nasal fossa should be examined, for possible pressure between the turbinates and septum, or small localized points of inflammation, both of which are liable to cause just such conditions. I am well aware of the fact that many cases having the very worst deformity with all kinds of displacements of the bones which must necessarily cause pressure go through life without any reflex symptoms whatsoever; but on the other hand I have seen cases clear up and all the symptoms disappear after the removal of a small polyp or piece of bone which came in contact with the septum. Nasal spurs or deflections of the anterior triangular cartilage, when of sufficient size to come in contact with the opposite side of the nose, bringing two mucous membranes in constant contact, will in nearly all cases predispose the patient to attacks of acute rhinitis, which sooner or later cause reflex bronchial disturbances.

A spur or deviation in the triangular cartilage may only obstruct a portion of the nasal opening, allowing free nasal respiration either above or below the deformity, and still be the cause of repeated attacks of acute rhinitis.

From pressure and moisture over these points of contact the mucous membrane soon loses a certain amount of resisting power and from the least exciting cause, such as sudden change in temperature, or from the slightest exposure, an acute nasal congestion followed by the usual symptoms of cold are precipitated. These acute attacks in the beginning only involve the upper respiratory tract, but as time continues and the number increases, a gradual spreading first into the pharynx and later the bronchial tubes is sure to follow.

Many of the headaches and ocular symptoms attributed to eye strain fail to respond to treatment of the eyes per se, because the primary seat of trouble is found in the nasal cavity.

I have seen cases of chronic catarrhal conjunctivitis which have resisted all kinds of local and internal treatment clear up by the removal of a middle turbinated bone or the treatment of a nasal catarrh.

The chronic aural symptoms following nasal obstruction are usually found in adult life and are extremely trying and difficult to cure. The most frequent one encountered is a chronic catarrhal otitis media, which is capable of producing almost any symptom referable to ear disease. It comes on so slowly and insidiously that patients fail to realize the condition they are in until irreparable damage has taken place.

The acute troubles arising from nasal obstruction are found in young and old, but especially in children who suffer from adenoids and hypertrophic catarrh. They are peculiarly liable to recurring attacks of otalgia and acute otitis media, and should the exciting cause not be removed, they later in life are compelled to seek the aurist for relief when it is very difficult to secure.

Normal free uninterrupted nasal respiration is one of the most essential requirements for a healthy development of all the senses, and when parents and physicians are taught to fully realize the importance of this fact, the result will be fewer nervous wrecks, brighter minds, less criminals, happier homes, healthier mothers, and ideal husbands and fathers. How frequently do we see the whole life of a child changed after an adenoid operation, and as this is one of the chief causes of nasal obstruction in the young I will endeavor to show some of the effects produced by them.

Go into our school rooms and glance over the pupils, pick out the mouth breathers, and in nine cases out of ten you will select the ones who give the most trouble, both as to conduct and inability to learn. Their little minds are sluggish, they fail to grasp what is being taught, and soon become restless and inattentive, creating no end of trouble for the teacher. Many of these cases are nervous, irritable and self-willed, developing uncontrollable tempers, which, if not trained when young, grow up to be undesirable citizens and later may have brain storms.

It seems to me that our teachers should be instructed to send

all pupils who persistently breathe through the mouth to the visiting school physician for examination. If this were done I am sure many of the children would grow up to be better and brighter men and women.

My object in writing this paper is to review the causes and diagnoses of nasal obstruction, and to show that in some instances, at least, it is one of the causative factors in reducing the moral standard which society in general should uphold.

Observe the facial expression of criminals in general and see what a resemblance to that found in mouth breathers exists. Seventy-five per cent. of all the cases in the house of correction will show indisputable evidences of nasal obstruction; consequently it is only fair to suppose that nasal reflexes arising from obstructive diseases within the nose contribute largely to the mental deterioration and loss of self-respect which is found in these cases.

DISCUSSION.

DR. RAUE.—We certainly owe a debt of gratitude to Dr. Weaver for his painstaking and thorough presentation of the subject of nasal obstruction. Dr. Weaver has pointed out both the immediate and remote effects of this interference with the important physiological function of respiration so clearly that we, who are not nose and throat specialists, can add but little to his clear-cut picture. I am sure there is not one among us, however, who has the slightest doubt as to the far-reaching evil results of mouth-breathing upon the general health.

There are a few points in connection with nasal obstruction, especially when the same develops in early life, to which I wish particularly to call your attention.

As Dr. Weaver has emphasized, the nose is the normal respiratory organ; the mouth is the entrance to the alimentary tract and was never intended to serve the function of respiration. Consequently the newborn babe makes every effort to breathe through the nose, even when the same is completely obstructed. Anyone who has observed a babe with a cold in the head or with nasal obstruction from whatever cause, fight for its breath, must have been impressed with the power with which this instinct asserts itself.

One of the points upon which I would dwell is the fact that the younger the child the greater will be the distress induced by nasal obstruction and that obstruction coming on suddenly from some acute condition may actually endanger the child's life. Take for example, nasal diphtheria occurring in a young child. Primary nasal diphtheria is frequently encountered without toxic symptoms of any consequence and may be afebrile and sub-acute in its course. The disease may not be suspected until the membrane has advanced well forward into the nares and thus forces itself upon the attention of the physician. The child may therefore have

had nasal obstruction and an irritating, sometimes bloody, discharge for a week or more before the true nature of the condition has been determined.

In the case of a young child the suffering will be intense, chiefly from the difficulty in breathing; in every case of nasal obstruction, therefore, a thorough examination of the nares should be made and in all doubtful cases a culture obtained. Some years ago, in a case of this kind, I resorted to nasal intubation as suggested by Northrup, of New York, and I am convinced that the child's recovery could not have been possible without the relief afforded by this procedure.

Nasal obstruction in the newborn is, in my experience, most frequently due to hereditary syphilis; the obstruction, or snuffles, develops within the first three weeks of life.

Adenoid vegetations rarely become sufficiently engorged or hypertrophied to produce obstruction until after the second year, nevertheless, as Dr. Weaver's personal statistics show it may occur at a very early date. I can corroborate these observations from my own experience; in one case I was obliged to remove the growth at the tenth month; two other cases were just about two years old. Apropos of this subject of nasal obstruction from adenoids, I should like to say that such an obstruction is not necessarily always an indication of hypertrophy of these structures, but that it may be due to vascular engorgement secondary to some gastrointestinal disorder and therefore amenable to medicinal treatment at times.

The reflex disturbances associated with adenoids and pathological intranasal conditions are most interesting and difficult to explain. Their dependence upon reflex irritation has, however, been fully established. Asthma in children is an example of such a condition quite frequently, and recurring attacks of bronchitis are often encountered in children with some nasal trouble. Touching the offending spot in such an individual will bring on an attack of coughing or even asthma. A pronounced case of asthma of this type came under my care some time ago, the child having been unable to obtain relief from the usual medicinal treatment. On examining the nose I found a cystic middle turbinate body pressing against the nasal septum. When this was irritated the child would have an attack of asthma. The case was referred to Dr. Weaver, and a prompt cure followed upon the removal of the abnormal turbinate.

There is so much to say upon this topic that I would occupy too much of your time unless I limited myself in this discussion. Much, of course, would only be a repetition of the things Dr. Weaver has already dwelt upon. I shall therefore confine my closing remarks to the relationship of mouth breathing to tuberculosis.

In the first place, there is the question of infection to be considered. We know that even in infants tuberculosis, at least from the clinical standpoint, is an infection through the respiratory tract in the vast majority of instances. It has been shown that the air is practically free from germs of all kinds before it reaches the trachea in the case of nose breathers, (Hildebrand, quoted by Latham). It has also been demonstrated experimentally that by the time the air reaches the pharynx it is practically sterile when the nose is in a healthy condition. So much for the prophylactic effect of nose breathing. Secondly, the evil results of long-continued mouth

breathing which have been defined so clearly by Dr. Weaver, indirectly predispose the individual to tubercular infection. Time and time again have I been impressed with the relationship of the two conditions in cases of incipient tuberculosis in young individuals coming under my care and before it is possible to do anything for these patients therapeutically, we must first of all have removed all sources of nasal obstruction as far as possible in order to restore the normal mode of respiration.

THE PRESERVATION OF HEARING. W. Sohler Bryant calls attention to the advantages of periodical examination of the ears and the benefits which would accrue to the patient through the easy correction of aural defects which, untreated, would later become serious or incurable, impairing the hearing and menacing the well-being, and perhaps even the sanity and life of the individual.

Otology can treat of no subject of more vital importance than the preservation of hearing. It comprises the whole field of otopathology, which it attacks with the most effective weapon, prophylaxis. The general practitioners, when they comprised the whole of the profession, with the exception of the eye and ear men, spoke slightly of otology, perhaps because of their own unfortunate experiences in this field. They held that diseases of the ear were of two classes: First, those that would get well without treatment; and second, those that would not get well with any treatment. Since that time the surgical achievements of the otologist have rendered this ancient view ridiculous. Why, then, does there still linger deep in the minds of many outside of this specialty the opinion that the treatment of deafness is unsatisfactory, if nothing worse?

The layman has not yet learned to practice the same economy of his ears as he does with his teeth, for example. He does not go at regular intervals to the otologist, as he would to the dentist, in order that commencing defects may be corrected before they become serious. Nor does he go to the otologist as he does to the ophthalmologist as soon as deterioration has taken place. A slight deterioration in sight is immediately perceived, whereas a great loss of hearing may be brought about entirely unbeknown to the individual.

Prophylaxis is, therefore, important. Corrections of inflammatory conditions occurring in the nose or in the pharynx should be an essential to the prevention of future otological disturbance. Treatment of constitutional disorders should receive attention.

Early observations will detect insidious conditions which cause over 95 per cent. of deafness, and judicious treatment cure them before serious impairment has taken place. It is suggested that the otologist be consulted once a year, after every cold, and when anything unfavorable is noticed in the ear, which is often the case in general nervous affections, exhaustion and general diseases, as well as when there are any alarming ear symptoms.—*Medical Record*. Mar. 2, 1907.

COMMUNICATION.

TO THE EDITOR OF THE HAHNEMANNIAN MONTHLY:—

DEAR DOCTOR: Your editorial on the Pennsylvania Single Board Bill in the May number is interesting. You have gotten “warmer,” as the small boys and girls say, to the real issue than anything I have heard or seen.

I have greatly enjoyed the little game of buttony-buttony so earnestly played at Harrisburg this spring. I promised myself to keep quiet, but you have gotten so “warm” that I must say something or I’ll “bust.”

Your editorial suggests that back of, beneath and around the heart of this remarkable burst of passion “for the good of the State” there may be that miserable, ignoble impulse—so obtrusive nowadays—called self-interest. Let us start even as between “schools.” Let us remove all the weights and “riders” from the scales and start even. How many of this noble band of patriots, do you think, would keep up their interest in ANY State Board Bill for Pennsylvania, if it did not offer a chance, first, to take a whack at “the other fellows,” and, secondly, incidentally, of course, to receive a nice little honorarium? (would it be one or two thousand?) for serving their State in this exacting capacity of Medical Examiner?

How many of them will step forward valiantly for “the good of the State” and proffer her their service just for the honor of it—to have from her pretty lips trembling with suppressed emotion these beautiful words:

“Noble Sons! You have ‘done noble’! I wouldn’t a thought it!”

Accept from my hand and from the hearts of a long-suffering community this little token of our appreciation. Do not hesitate. It does not come from the lean pockets of your younger brothers in the profession. It is my check drawn to your order upon the Treasury of Pennsylvania. It is to recompense

you for your actual necessary expenses incurred in protecting me from these unscrupulous young cubs.

No, boys. Keep the change. It would be a capital offense.

Buy yourselves "glassies" or tops. They will help to pass the time while you manfully bear up under the distinction of your appointments and are "watching" the younger boys doing the "sums" many of you could not do.

Keep it all. It's not too much. How long must we tolerate this cruel farce in the name of increased efficiency?

How long must young men, many of whom have deprived themselves four full years and encumbered themselves to do it, in order to *really* prepare themselves "for the good of the State," be compelled to bear transportation and living expenses for nearly a week of re-examinations, to say nothing of an additional tribute of \$25.50 into the pockets of a Board of "Examiners," and all this for the privilege, shall I say, of defending the chartered rights of their diplomas against the State which grants them.

Real doctors, graduated from any of the reputable colleges of this State, don't fear these examinations. They have seen worse. These examinations only make them "nervous" and "tired." If the State can devise no better way to protect herself against her own chartered colleges, by all means, let her re-examine them, but in all fairness let *her* pay the bills.

Let her examiners be physicians and surgeons appointed solely because of distinguished merit and professional standing. Such an honor should be worth the sacrifice of time and convenience.

Some of the young doctors who will be of greatest credit to the State can least afford to be "held up" at this time in their careers, after years of expensive preparation to practice, at the beginning of years, it may be, of waiting to earn a livelihood in their chosen calling.

This is a form of eminently respectable graft, of which we should have enough.

The "time to raise the standard" is before graduation, not after men have left their college halls. If the rapid, rational advance of American medicine makes five years necessary to a degree, make it five or six by legislative enactment, if must be.

Scientific students will meet it as they have before. They will get something from their increased expenditure (and

charge for it later). These are real "raises" "for the good of the State."

The State is threatened with an increased multiplicity of "schools," each demanding a legal status as loudly and effectively as popular favor encourages.

Each wants its own "Board of Examiners."

If this buxom old dame is embarrassed by these many demands let her look to it in the future not to be too liberal with her charters. At the same time, let her be aware that in the past a decided dog-in-the-manger spirit in the medical profession, as a whole, has trapped her into the vain attempt of trying to settle by legislative enactments strictly technical controversies (made up of truths and part-truths), controversies which have failed of solution in medical bodies or of suppression by medical codes of ethics.

The State won't be called upon to settle such disputes when the great body of American physicians grows "bigger" and when it brings itself to look with cool, dispassionate, critical analysis upon each new cult or "school" which bids for popular favor as being simply inevitable in the nature of things, and to be met calmly and scientifically by honestly investigating its *raison d'être*. The medical art will advance from the very unscientific and untenable position of "school" fetishism to a higher level of practical efficiency.

Let us have enough of this stultifying spirit of "school" orthodoxy. There have always been dissenters and America is a bad place to look for extinct species. As American physicians, come let us reason together. Let us agree to disagree if we must, generously and amicably.

"Unitas in certiis, libertas in dubin, carita in omnibus."

Thus only will we really and truly "raise the standard" "for the good of the State."

EDWIN LIGHTNER NESBIT, M. D.

SYNCOPE. Debove and Gouvin direct to place patient flat on back with head sloping; loosen garments, bands and collars. Flagellate face and chest gently with towel wrung out of cold water. Use friction, sinapisms, vinegar or alcohol over chest, and inhalations of vinegar or ammonium salts; also artificial respiration if need be, and electricity to diaphragm and precordial region. Prevent relapse by keeping in bed, preventing sudden movements, and giving stimulants. Dulles recommends applying heat to pit of stomach if patient is slow in coming to.—*Denver Medical Times*.

EDITORIAL

THE ELEMENTS OF A SUCCESSFUL MEDICAL CAREER.

At this season of the year, when many young men in all sections of our country are about to receive the degree of Doctor of Medicine and to enter upon the practice of the profession which they have chosen for their life's work, it is important that they should pause awhile and consider the duties of a physician and what elements are necessary for a successful career in the practice of medicine. And right here we should add that in using the words, successful career, we do not mean the accumulation of a large sum of money. The physician is worthy of his hire and it is not only proper, but even essential that he should strive to earn sufficient money to provide himself and his family with the necessities of life and to enable him to save sufficient to provide for old age or for the education and raising of his family in case of his death. But the ideal of success which we believe should be in the mind of every physician worthy of the profession to which he belongs is the attainment of such knowledge and skill as will enable him to add to the comfort and happiness of his fellow-beings and to earn for himself the confidence and respect of the community in which he lives.

It would seem natural in detailing the qualifications necessary for a successful medical career that an intimate knowledge of the medical sciences should be mentioned as the first and most important. Those who have had experience in the practice of medicine, however, know that this is not so, and we do not hesitate to say that the first essential of success is integrity of character and personal worth. People expect more from a man in professional than in business life, and there is no profession where true worth of character counts for more than in the practice of the healing art. Integrity and sincerity must characterize every act of the physician who hopes to attain any real success, and especially must he exhibit these qualities in his dealings with his patients. When an individual places his well-being and perhaps even his life in the hands of

a physician, it becomes his duty to always act for the best interests of the patient. Under no circumstances should the physician allow self-interest, expediency, financial considerations or any other motive to influence his judgment or his actions. This is by no means an easy rule to follow, but the young practitioner who conscientiously adheres to this principle is bound to win the confidence and the commendation of his fellow-men.

Next to honesty and sincerity in dealing with his patients, it is a physician's duty to deal honestly and frankly with members of his own profession. Nothing does more to disgust the public with a medical man than an attitude on his part of petty jealousy toward the members of his own profession. They recognize at once that such an attitude is both unworthy and inconsistent with the broad scientific spirit that a physician should possess. The scientific practitioner will always realize the frequency of his own mistakes and will be charitable toward those of his fellow-practitioners. The whole problem of medical ethics can be summed up in the simple rule: Do unto others as you would that they should do to you.

The second essential element of a successful medical career is a thorough and sympathetic knowledge of human nature. The young physician must ever bear in mind that while the science of medicine deals with pathological states and processes, the art of medicine deals with persons afflicted with these conditions. The difference between the two is a very essential one and must not be lost sight of. Knowledge of pathology and clinical methods of investigation may enable us to diagnose a patient's disease, but it takes sympathy, tact and will power to inspire the confidence of the patient and to induce him to carry out your directions with sufficient care and persistence to bring about the desired result. Unfortunately these qualities cannot be learned from text-books or from didactic lectures, and this is the reason that many men who have been hard and conscientious students are complete failures in the practice of their profession.

No gift is more valuable to a physician than tact. It is called into requisition continually and without it success is well-nigh impossible to the average man. As ordinary examples of tact we might mention the ability of making a physical examination of a patient without causing pain or offending the modesty of the patient; to inquire into the history of the patient in a way that is at once thorough and yet void of offense;

to announce a serious prognosis in a manner that is positive and yet not abrupt or unsympathetic. Tact is not policy and it is not deception. Briefly it is the faculty of doing the right thing at the right time. Like other talents, some men naturally possess it to a greater degree than others, but it can be cultivated by all.

Again, it is necessary that medical practitioners should cultivate the ability to inspire confidence. To do this a physician must have confidence in himself, for the man who does not have confidence in his own powers is not likely to inspire anyone else to believe in him. Of course, we do not refer to the self-confidence based on egotism and self-conceit, but to the confidence which is founded upon sincerity of purpose and a thorough knowledge of the medical art. When cultivated along these lines this faculty becomes the most valuable aid a physician can have in building up of an extensive practice.

Next to knowledge nothing is more calculated to gain the confidence of patients than sympathy. Most persons who are ill demand our sympathy, as well as our skill, and, in fact, in many instances all the physician is able to do is to add to the patients' peace of mind by words of sympathy and cheer. As Holt has said, besides physical relief patients want a certain moral support, some one to lean on, to allay their fears if they are groundless, as more often than not they are found to be.

A courteous and gentlemanly manner should characterize a physician's conduct toward his patients at all times. A coarse familiarity is to be avoided even with individuals who seem to encourage such a spirit. Ultimately such a course leads to a loss of respect for the physician, with the result that his influence is weakened or destroyed.

The third essential element of a successful career as a physician, we would say, is an adequate knowledge of the medical sciences. We have not put this last, because we believe it to be unimportant, but because we believe the tendency of modern medical education is to neglect the patient for the sake of the specimen. In other words, we are inclined to pay more attention to the medical science of the laboratory than to medical art as applied to practical life. How necessary it is that we should constantly remind ourselves of the oft-quoted yet ever true advice of the founder of homœopathy: "The duty of the physician is to heal the sick." The kind of knowledge that the physician should strive after should be practical knowledge.

In his "Adventures of Sherlock Holmes" Dr. Conan Doyle propounds the theory that the human brain is a storehouse which will contain a certain amount of knowledge, varying, of course, in different individuals. After the brain has been filled with facts, according to this theory, if new facts are acquired a corresponding amount of previous information is forgotten. On this account, he argues, that an individual who would become successful in a certain department of knowledge must train himself to remember only such knowledge as will be of value to him in the particular line in which he is striving to make himself an expert. This may be merely a fanciful view, but we believe that there is a practical point in it, namely, that we should endeavor to sift from the vast amount of information at our command such as is of practical value to us in our work and store it in our minds for use. A large amount of general information is not so much what is demanded in our day, as full and complete knowledge of some special subject, and it is the man who has this complete and special knowledge that is likely to succeed whether he be engaged in the practice of medicine or of some other art or trade.

In this brief discussion of the qualities which are necessary to fit a man for a successful career in the practice of medicine we have made mention only of the most obvious. The art of medicine is a life-long study and a man must give to it all the enthusiasm and energy and skill that he can command if he hopes to attain the laurels of true success. The prize is not easily won, but the rewards of our profession, if not gilded with gold, are the highest and best to which the human mind can aspire. The history of medicine teems with the lives of men who sought not their own gain, but the interest of humanity. It is to the glory of our profession in the past that its members have not been dominated by a spirit of commercialism, but of humanitarianism, and it is the sacred duty of the men who are called upon to fill the gaps in the ranks to emulate the example of the past and to give without stint, as physicians have always given, of the best of their time and energy for the amelioration of human suffering

THE CLEANSING OF THE MOUTH.

It is a well-known fact that the oral cavity is an excellent incubating chamber for bacteria. Even in health it contains an immense number of organisms, most of which are harmless in character, but in a large number of cases pathogenic bacteria are found also. In infectious febrile disease and in many gastro-intestinal disorders the bacteria present in the mouth proliferate rapidly and poisonous products of the activity are constantly swallowed and add to the general toxic condition. In pyorrhœa aveolaris the results of the swallowing of these toxic substances is exhibited to a marked degree and the excellent results which have been obtained from thorough cleansing of the teeth and gums in pernicious anæmia has led several writers to believe that even this serious malady may result from the absorption of bacterial toxines formed in the mouth.

In view of these clinical facts the question of how to keep the mouth free from injurious organisms and their products becomes a very important one. The most accurate data which we have up to the present is that collected by Aug. Wadsworth and published in the *Journal of Infectious Diseases* of October, 1906. His experiments were made largely with pneumococci, but the conclusions which he has reached apply to other germs as well. He found that many substances which were capable of destroying bacteria in a broth media were absolutely inefficient when used in the mouth. It was found especially difficult to destroy bacteria in sputum, as the coating about them served to protect the organism from the action of the antiseptic solutions employed. The experiments showed the normal mucous secretions of the mouth to be markedly bactericidal and by pouring out from the mucous membrane they wash off and destroy many germs. The favorite seats for the development of bacterial colonies were in the crevices and pockets of the mouth which do not drain easily and are difficult to clean. Normal salt solution and ordinary alkaline solution were readily diffusible and removed much infectious matter. These solutions quickly destroy pneumococci, but have little bactericidal action on the other organisms prevalent in the mouth. Most of the ordinary commercial antiseptic solutions proved to be inefficient in destroying pneumococci, and even such antiseptics as formalin and hydrogen peroxide failed to act on pneumococci in exu-

dates or in sputum. An important finding was that alcohol alone of all the solutions tested proved efficient under all conditions and that its diffusability was greatly increased by the addition of a small amount of glycerine. The most suitable percentage for habitual use was found to be a 30 per cent. solution. To summarize, Wadsworth states cleansing the mouth with normal saline solution removes secretions and infectious matter, but does not destroy bacteria. Alcohol in the strength of a 30 per cent. solution in water and glycerine rapidly removes secretions, destroys bacteria and aids the natural resources of the tissues. The strong antiseptics ordinarily used in surgical work were found to be irritating to the mucous membranes or exposed the patient to danger of poisoning.

SELECTED EDITORIAL.

THE MEDICAL UNIFICATION BILL.

THE act to regulate the practice of medicine which has just become a law by the approval of Governor Hughes makes two notable changes in the medical institutions of the State of New York. It strikes out of the New York statutes all recognition of the homœopathic school of medicine and it legalizes the practice of osteopathy. In other words, it denotes the legal extinction of the homœopaths and the triumph of the osteopaths in their long struggle for recognition by the Legislature.

The extinction of the homœopaths has been effected by a change in the Constitution of the State medical examiners. For many years past there have been in New York three separate State Boards of Medical Examiners, of seven members each. One board has represented the Medical Society of the State of New York, composed wholly of the regular or so-called allopathic school of practitioners. The second board has represented the Homœopathic Medical Society of New York. The third board has represented the Eclectic Medical Society of the State of New York. Each of these three societies has nominated at each annual meeting twice the number of examiners to be appointed in that year on the board representing that society, and from the names of such nominees the appointments have been made by the regents of the university.

Each board was required to submit to the regents lists of suitable questions to be put to applicants for licenses to practise medicine in this State. From these lists the regents prepared question papers, which were required to be exactly the same for all candidates, except the questions in therapeutics, practice and materia medica. In these subjects, which embrace the drugs to be used by the practitioner and the method of treatment to be adopted, three sets of questions were prepared—one by the examiners of the regular school of medicine, one by the examiners of the homœopathic school and one by the examiners of the eclectic school; and any candidate was at liberty to select which one of these three sets of questions he would be examined in.

The new law changes all this. It substitutes a single Board of Examiners, consisting of nine members only, to be appointed by the regents and to hold office for three years. The members are not required to belong to any particular school of medicine. The new board is also required to prepare suitable lists of questions to be put to applicants for licenses to practise medicine in this State. These questions, however, are not to include any relating to therapeutics, practice or materia medica. The effect of this omission has not been generally understood. It is an abandonment by the State of any inquiry as to the acquirements or views of medical practitioners in respect to the medicines which they shall use or the mode of treatment which they shall follow in caring for their patients. These matters, which heretofore formed the subject of special questions prepared by representatives of the regular school, the homœopathic school and the eclectic school, are now left wholly to the medical colleges at which the candidates for the State licenses have graduated.

It is a little difficult to see any logical justification for this change. The only ground upon which the State can properly require a person to pass an examination before permitting him to practise medicine is that such a regulation is necessary for the protection of the community against unqualified practitioners; and it does seem rather absurd to prescribe an examination in all other branches of medicine and surgery except those which have to do with the selection and administration of drugs and the treatment of the patient. These matters would appear to be of the utmost importance; yet they are relegated to the medical colleges, while the State provides for an exam-

ination in subjects which, while they are no doubt of very great importance, are important only as leading up to actual practice. If the medical colleges can safely be allowed to give all the instruction necessary in reference to medicines and treatment, why cannot they be equally trusted to teach everything that a medical practitioner ought to know.

As to the recognition of osteopathy, we should have no fault to find with that feature of the new act if it imposed upon a candidate for the degree of Doctor of Osteopathy the same condition that it imposes upon other candidates for a license from the State to practise medicine. Other candidates are required to have studied medicine not less than four school years of seven months each in four different calendar years in a medical school registered as maintaining a standard satisfactory to the regents, whereas an applicant for a license to practise osteopathy is required to have studied merely in a college of osteopathy for not less than three years. After 1910 the period of study is to be extended to four years; but the regents are required to admit at once and without examination any person who at the time of the passage of the act was engaged in the practice of osteopathy in the State of New York, providing he is a graduate of a college of osteopathy requiring a two years' course of study. Under a decision recently rendered by the Appellate Division of the Supreme Court in this city all such persons were violating the law when this act was passed.

The recognition of colleges of osteopathy as distinguished from medical colleges is sought to be justified by a provision in the act to the effect that a license to practise osteopathy shall not permit the holder thereof to administer drugs or to perform surgery with the use of instruments. In reference to this provision it is to be noted that there are many cases calling for surgical treatment without instruments in which a complete and exhaustive knowledge of surgery is just as essential as in cases calling for instrumental interference. A recent example which attracted worldwide attention is furnished by the case of the Armour child, who was treated in Chicago by Dr. Lorenz.

If a man or women thoroughly trained in medicine and surgery desires to practise osteopathy there can be no good reason why this should not be permitted, but we are strongly impressed with the danger to the community in allowing med-

ical practice of this character unless it is conducted by those whose training is the same as that demanded of medical practitioners generally.—From the *N. Y. Sun*, May 21, 1907.

In reproducing the above editorial, we have departed from our usual custom respecting editorial contributions. We regard the *Sun's* editorial as the greatest campaign document ever written, especially as it is the product of a strictly unbiased journal. It is evident from its contents that the laity have realized the object and the effect of the one board medical bills which have been introduced into the legislatures of several States, even more fully than the great body of homœopathic physicians themselves. We believe this editorial should receive the careful attention of every member of the homœopathic school, and should be placed in the hands of all members of legislatures, city councils, etc.

PERTUSSIS. In severe whooping-cough, to prevent vomiting Kilmer advises the use of an abdominal belt. Ringer gives two to six grains of alum every three hours. Hare recommends a teaspoonful or so of milk after each paroxysm of coughing.—*Denver Medical Times*.

LIQUID MUSTARD PLASTERS. Boulé (*La Clinique*, July 13, 1906) has found that some of the inconveniences of mustard-leaves, or sinapisms, may be avoided by making a solution of volatile oil of mustard (4 to 6 grammes) in alcohol of 90° (enough to make 90 cubic centimeters). In order to make the application, it is only necessary to moisten a layer of cotton or gauze with this solution, and apply to the desired locality, cover it with a bandage or layer of wadding.—*New York Medical Journal*.

THE PERIOD OF IMMUNITY AFTER INJECTION OF DIPHTHERIA ANTITOXIN. Stiller (*Jahrbuch für Kinderheilkunde*) has studied the results of the prophylactic use of diphtheria antitoxin in the Strassburg clinic from March, to the various springs and baths, though he says that patients cannot very well bathe too often. Small importance is also attached to the various physical methods of treatment. With regard to X-rays, the writer thinks it should only be applied to obstinate patches, and considers this method still in the experimental stage. The writer goes so far as to say that diet, in his opinion, is a matter of no importance in treating psoriasis. Improvement has resulted from the use of arsenic, though never a radical cure. In cases where a permanent hyperemia is produced by the employment of reducing agents the writer recommends the use of naphtalon or the vaselinum adustum (dry-heated vaselin), to which can later be added 1 to 5 per cent. of pyraloxin. The latter has a healing effect without being irritating.—*Med. Rev. of Reviews*.

GLEANINGS

A SIMPLE TEST FOR ACETONE IN THE URINE.—Of the common tests for acetone in the urine, the iodoform and the nitro-prusside tests, the former is simple and yields absolute evidence (with certain exceptions), together with microscopical examination of the iodoform crystals. The smell of iodoform produced when performing this test is unreliable, as a similar smell to that of iodoform is produced when iodine and alkaline solutions are added to urine irrespectively of the formation of iodoform.

The sodium-nitroprusside test, which consists in the darkening which takes place on the addition of acetic acid to a solution of sodium-nitroprusside, urine and liquor potasse is (Taylor, *Lancet*) rendered more simple, delicate and accurate by a slight modification, namely, the substitution of strong ammonia for the liquor potasse and the elimination of the use of acetic acid. In the ordinary test when the solution of potash is employed there is a uniform reddening of the whole solution, which, on the addition of acetic acid in the presence of acetone, becomes darker when the acid comes in contact with the urine, the darkening passing down as the acid sinks. Therefore with this test the addition of liquor potasse to the urine and sodium-nitroprusside yields a red coloration, whether acetone is present or not, and it is only after the final addition of acetic acid that the presence of acetone is recognized, and then only when there is a fair amount of the latter present. The detection of the presence of acetone is, therefore, dependent on the darkening of an already darkish red fluid by the final reagent acetic acid, and the degree of darkening, when acetone is present only in small quantities, is not altogether easy to determine. If, however, strong ammonia replaces the potash solution the test for acetone is as follows: On adding the ammonia to a solution of sodium-nitroprusside and urine the ammonia solution remains on the top; thus there is a clear solution uppermost, with the urine solution below. Should acetone be present, even in minute quantity, a well-marked and absolutely characteristic ring of magenta (or petunia) appears within from one to three minutes at the junction of the two fluids and gradually spreads upward, pervading the whole of the ammonia solution if acetone is present in considerable amount.

The strength of the solution of sodium-nitroprusside is not important, but it is important that it should be prepared fresh, and a few crystals dissolved in a test tube of water are sufficient.

THE RELATION OF BLOOD PRESSURE TO THERAPEUTICS. H. A. Hare; M. D., (*The Therapeutic Gazette*, February, 1907), speaking of increased blood pressure says: "Are we to regard it as an evil to be attacked, or recognize that it has become a necessary and unavoidable evil? I believe that the present attitude of the profession in regard to high tension is tending to the abuse of vascular relaxants in many cases for the following reasons: It is a question whether high tension may not be designed by nature to

drive blood through narrowed vessels to distant parts for their proper nutrition. If we lower pressure by relaxants of the larger arterioles and arteries we starve distant tissues. Again, the heart in many cases of high tension has undergone compensatory hypertrophy, and this increased power and the high tension help to feed the heart muscle itself through the coronary vessels and the vessels of Thebesius. Again, the normal heart is designed to beat against a pressure of from 100 to 140 millimeters of mercury, and nothing exhausts a heart so rapidly as to beat excessively because of low pressure, I am inclined to think that very often the hypertrophied heart of high tension may be considered to have established for itself a new standard of pressure, say, of 130 to 170, and if we reduce this we may produce a state which may be considered as abnormal as is a pressure below the true normal. I am certain that I have seen this condition again and again. In other words, in studying high pressure, it is not sufficient to study the pressure alone. We must study the whole cardio-vascular apparatus. We must endeavor to prevent an increase in tension, but we must not reduce tension simply because it is high unless we find that the heart cannot stand the stress, or that the pressure is so high and vessels so fragile that rupture is threatened."

With regard to the treatment of abnormally high or low arterial tension, Hare considers it very unwise to prescribe drugs for a patient simply because his vascular tension is high or low.

DIET AS AN ETIOLOGICAL FACTOR IN SKIN DISEASES.—In a recent article in the *Journal of Cutaneous Diseases*, Stelwagon gives the following divisions of possible food action, in the causation of skin diseases. 1. Idiosyncrasy. 2. Direct local action. 3. By engendering nervous excitement or depression. 4. Incompatible or irrational mixtures. 5. Underfeeding and overfeeding, including improper feeding. 6. Toxic changes in foods due to improper or too prolonged keep, and 7. Chemical food preservatives.

Under idiosyncrasies, the author calls attention to certain foods which in certain individuals, so predisposed, produce skin eruptions, among those named are strawberries, crabs, lobsters, clams, pork, veal, fish, oysters and acid fruits. Among those foods responsible for skin eruptions by direct local action are tomatoes, acid fruits, peppery and other hot sauces, which have produced eczematoid conditions of the lips and aggravated already existing conditions.

Excessive tea, coffee and alcoholic indulgence, and sometimes the use of tobacco, by engendering nervous excitement or depression sometimes produce or influence such diseases as pruritis, acne rosacæ, eczema, and eczema seborrhæicum. Incompatible or irrational mixtures include such foods as oatmeal, buckwheat, acid oranges, grape fruit, etc. The author contends that it is not so much the fault of these individual foods, as it is their improper cooking and the very bad habit of making irrational mixtures by the liberal use of cream with acid fruits, the too free use of sugar, and rich greasy gravies, etc. The author further contends that in overfeeding the whole system becomes surcharged with improperly digested food elements and elimination being incomplete, an existing cutaneous vulnerability may develop into actual disease, and further, in those cases in which there

is defective kidney and intestinal activity, there is attempt at elimination through the skin, which acts as a direct irritant. Many of the spring and fall erythemata are accounted for, by the toxic changes which take place in foods which have not been properly cared for in refrigerating plants, due to a lack of careful supervision of the proper degree of cold, between the unsettled heat and cold terms at the time of change of the seasons. Under chemical food preservatives as a causative factor in skin diseases are mentioned boric acid, salicylic acid, potassium nitrate, and formaldehyde.—*J. C. D.*, April, 1907.

RALPH BERNSTEIN.

DIET AS A THERAPEUTIC FACTOR IN SKIN DISEASES.—*G. H. Fox* gives the following views of the diet as a therapeutic measure in the treatment of skin diseases; a careful regulation of the diet in the treatment of all inflammatory affections of the skin, including all skin affections in which the congestive element is present in a greater or less degree. Temporary, total or partial restriction of the diet, even in those suffering with malnutrition. Decided reduction in weight, five to twenty pounds, by withdrawal of at least one-third of the food taken daily, especially in those who indulge in excesses. Avoidance of excesses in nitrogenous diet, especially in psoriasis, which improves at once, and remains so on the total withdrawal of a nitrogenous diet. Complete change of diet, "even if it be from a theoretically good diet to a commonly considered bad diet."

Avoidance of hasty, irregular eating, and nervous excitement and worry during meals. The author concludes with, "diet, exercise, bathing! These constitute the tripod of every trainer, restoring health, imparting strength, and inspiring energy. They are the faith, hope and charity of our medical gospel, and just as they tend to put a man in a fit condition for a prize fight or a boat race, just as certainly will they put many of our patients with inflammatory skin disease in a physical condition, in which nature alone or assisted by medical skill, will speedily effect a cure."—*J. C. D.*, April, 1907.

RALPH BERNSTEIN.

INDIGESTION IN SKIN DISEASES. SUMMARY OF 438 PATIENTS.—*White* has made a summary of 438 patients suffering from some form of skin disease to determine the percentage which might possibly be influenced by dietetic and metabolic errors. His summary, is as follows: During the period of investigation sixty-one different diseases were diagnosed; sixty-two per cent. of the dyspeptics were American, fifty-seven per cent. were Irish, and fifty-five per cent. were Polish Jews. Eructations were the most prevalent symptom of indigestion, and occurred in thirty-nine per cent.; regurgitation in thirty-six per cent.; epigastric weight in thirty-one per cent.; and pain in nineteen per cent. The author's previous etiologic association of certain dermatoses with dyspepsia is substantiated with one exception; for whereas the author's standard per cent is fifty-nine, he has found in acne rosacæ, seventy-one per cent.; acne vulgaris, fifty-five per cent.; eczema, sixty-four per cent.; eczema seborrhœicum, eighty-five per cent.; seborrhœa, eighty-three per cent; and urticaria, eighty-five per cent.—*Boston M. and S. Jour.*

RALPH BERNSTEIN.

CATARACT AND THE DUCTLESS GLANDS. The elixir of youth is sympathy with youth—not merely for it. The trend of the day in scientific circles is to an increasing recognition of the importance of the psychic element as a factor in tissue metabolism as well as in nerve control or the vital processes.

Senility is essentially a disorder of metabolism. It is one of the most prominent causes of cataract; in fact every lenticular cataract may be said to be a senile condition of the crystalline lens. According to Dr. Arnold Lorand, of Carlsbad (who has made a life study of the disorders of metabolism), old age is caused by degeneration—lowered functional activity—of the ductless glands, (thyroid, adrenals, pituitary body, ovaries, etc.); these govern the processes of oxidation and nutrition of the tissues. Victor Horsley and Vermehren hold senility to be due to degeneration of the thyroid, and it has been shown the pathologic alteration of one of the ductless glands can induce changes in the others. Among other effects of thyroid degeneration are decrease oxidation and of vascular pressure, also an impeded elimination of toxic waste products through the intestines and skin, by atony of the intestines with chronic constipation, and of the sudorific glands of the skin.

Sajous considers overactivity of the adrenals the source of diabetes; will it be found that there is adrenal exhaustion precedent to the appearance of diatetic cataract? Or is the latter consequent upon only the pancreatic form of that disease? Lorand argues for a pancreatic origin of diabetes, and is supported by other authorities in the assertion that the microscope reveals changes in the islands of Langerhaus even when the pancreas seems unchanged macroscopically; he claims that these islands may have not properly functioned during life despite the fact that no organic changes are discovered. Lorand cites a case of cirrhosis of the pancreas without involvement of the islands which had had no diabetes, and another case which had light diabetes, in which there was found involvement of the islands accompanying the cirrhosis. He considers the islands of Langerhaus blood glands, like the parathyroid, adrenals and interstitial cells of the testis, and also that they probably provide the internal secretion of the pancreas. Sajous was the first to assert that the adrenal system is the governing center of the oxidation processes of the whole body; in this he is now supported by an increasing number of authorities.

It is readily conceivable that the vitality of the blood plasma, the lymph stream and of the tissue changes will be impaired by lowered oxidation. From the above may we not gain a little deeper insight into the management of immature and especially of incipient cataract?

Not only is it well to relieve eye strain and stimulate the lymph circulation of the eye ball, and to stimulate the thyroid and adrenals by vibratory massage, fresh air, resistive calisthenics, etc., but the indications are to avoid everything deleterious to the ductless glands, excessive indulgence in alcohol, meat, emotions, overnutrition, sexual excesses, prolonged lactation, etc.

Lorand recommends, for senility small doses of the fresh thyroid, ovarian and adrenal glands, etc., but these must be based on a knowledge of the ductless glands. We would fear a reaction from such stimulation. The indicated homœopathic remedy (when it can be found), will afford more

sure and more satisfactory results.—*The Homœopath. Eye, Ear and Th. Journal.*

WILLIAM SPENCER, M. D.

RADIUM IN TREATMENT OF TRACHOMA. Dinger has given radium bromid a trial in the treatment of sixteen cases of trachoma. Seven patients were entirely cured; all the granulations have vanished. The younger the patient the more rapid and perfect the cure. In the older cases and in those with pannus, the recovery proceeds more gradually. He regards the radium treatment as an improvement over caustics and mechanical measures, as it is painless.

He used 5 mg. of radium bromid, applying it for a minute once or twice a week, then lengthening the application up to five minutes. The total length of treatment ranged from one to three months. All the patients had already been under treatment with other measures for from two to six years or more. Not the slightest by-effects were observed in any instance although scrupulous watch was kept for them.—*The Homœopath. Eye, Ear and Th. Journal.*

WILLIAM SPENCER, M. D.

SUBCONJUNCTIVAL SALT INJECTIONS. Beek reports thirty-four cases in which he made subconjunctival injections of salt solutions, varying in strength from 1 per cent. to 10 per cent. In eight cases of vitreous opacity seven showed improvement; of fourteen cases of central choroiditis, ten were improved and but one got worse; of twelve cases of detachment of the retina, six were benefitted.—*The Homœopath. Eye, Ear and Th. Journal.*

WILLIAM SPENCER, M. D.

THE TREATMENT OF PUERPERAL STREPTOCOCCUS INFECTION BY MEANS OF INTRAUTERINE AND SUBCUTANEOUS TURPENTINE INJECTIONS.—Fabre (Lyons) was led to use this method because of the well known antiseptic properties of turpentine. If the infection is still local he uses, twice daily, injections of turpentine water, but in beginning or existing general infection he gives the remedy subcutaneously or per os. For the intrauterine injections is used a liter of sterilized water containing 15 ccm. of turpentine and the same quantity of alcohol. This forms an emulsion which is sufficiently stable for injection. If burning in the vagina is produced, sterilized water injections will give relief. The effect of such injections is excellent, and is all the better if used early. They should be continued for some days after the temperature has fallen to normal. The author has seen good results even after the failure of other antiseptics. In the severe cases when the intrauterine injections do not seem to avail, and in cases where symptoms of general infection set in, or when phlebitis begins or when the intrauterine injections are otherwise contraindicated, the writer injects turpentine into the cellular tissue, one gram once or twice daily. For this purpose one gram turpentine is mixed with an equal part of alcohol in 200 grams of artificial serum, and he injects 5 ccm. some little distance from the navel. The injection itself is not painful. If used in the morning the temperature remains high in the evening, or even higher than

on the previous day, but falls on the following day with an improvement in the general condition. Usually three or four injections are necessary. If the temperature rises again, the injections may be repeated. In very severe cases the subcutaneous injections may be combined with the intra-uterine douches. Of 17 cases thus treated, 14 recovered.—*Abstr. in Zentralbl. f. Gyn.* 1907, 88.

THEODORE J. GRAMM, M. D.

A CASE OF ANASARCA AND PERITONITIS IN THE CHILD OF AN ECLAMPTIC MOTHER.—Vecchi (Parma) reports the case of a 23-year-old primipara who had suffered in the early months of pregnancy with headache and persistent vomiting. A few weeks before term, œdema of the legs, face, hands, and of the external genitalia set in. The abdomen increased rapidly in size, albumin appeared in the urine, and premature birth occurred. The fetus was delivered in a dying condition and exhibited diffuse œdema, in addition to cleft lip and polydactylia. During the puerperium a number of eclamptic attacks supervened, and in spite of treatment with *veratrum viride*, purgatives, morphia, and venisection, deep coma occurred; the patient, however, ultimately recovered. The section of the fetus showed, in addition to the anomalies above mentioned, a diffuse fibrino-plastic peritonitis with abundant exudate, with a complete atresia of the bladder and vagina; the kidneys showed small cystic degeneration, but were otherwise normal. The placenta and cord were also œdematous; microscopically the connective tissue was saturated with serum. These pathological conditions of the fetus point to two distinct processes, namely the developmental defects, in addition to the peritonitis and œdema. In regard to the latter, the question arises as to their relationship to the maternal eclampsia, whether cause or effect. The author thinks that there was originally a fetal peritonitis depending upon slightly virulent germs, which existed for a long time before the birth, and which caused a compression of the blood and lymph vessels in the abdomen and this led to the œdema of the fetus; later the œdema of the placenta in connection with uterine contractions, caused a loosening of syncytial elements which entered the maternal circulation and induced the eclampsia. There was no evidence of myxœdema in the child.—*Abstr. in Zentralbl. f. Gyn.* 1907, 125.

THEODORE J. GRAMM, M. D.

A NEW METHOD OF VENTROFIXATION. Liepmann (Berlin) reports the method used and devised by Bumm. He says the treatment usually used by them for retro displacement of the uterus consists in doing the Alexander-Adams operation when the uterus is movable, and doing a ventro-suspension when the uterus is fixed. The later operation is also performed as a secondary procedure when adnexal tumors have been removed, in order to remove the uterine body as far as possible from the inflamed peritoneum in the posterior cul-de-sac. Now while the Alexander-Adams operation holds the uterus in a far more completely physiological position, in addition to a certain amount of elevation, this is not the case with ventro-suspension. If, however, the uterus is to be attached to the anterior abdominal wall, the author believes that no other method should be used than that of Olshausen, namely by means of the round ligaments. If any other

method be used the patients are not only endangered by a future conception, but also feel every movement of the abdominal walls and also have unpleasant sensations while walking. After using Olshausen's method this is not the case, for a certain mobility is preserved for the uterus, and there is not the same danger from conception. The new modification suggested consists, not in attaching the round ligaments to the anterior abdominal wall close to the median incision, but at a point some distance removed from the edge of the incision. Furthermore, at the point where the round ligaments are to be attached, an incision is made in the peritoneum, and into this perforation a loop of round ligament is drawn, and the suture grasping this loop is passed through the fascia at two points close together and there tied, after the manner of the well known mattress suture. The suture material of silk. By this method an artificial inguinal canal is formed into which the round ligaments enter. The advantages claimed for this method are: A firmer fixation; a considerable mobility of the uterus, advantageous for future conception; and a relatively normal position of the uterus.—*Zentralbl. f. Gyn.* 1907, 169.

THEODORE J. GRAMM, M. D.

GONORRHOEA A CAUSE OF EXTRA UTERINE PREGNANCY. Weisswange (Dresden) reports a case in which this etiological factor was clearly demonstrated. He says that in spite of numerous writings on the etiology of ectopic gestation, unanimity among authors has not yet been attained. Some have looked for the cause of infantile conditions and their consequences, torsions of the tube and so forth, others have maintained that impregnation of the ovum taking place in the ampulla of the tube, every pregnancy stands the chance of becoming ectopic. Lately, however, the importance of inflammatory conditions in the tube has been recognized, and many authors think that especially the remains of old inflammations which produce crypts or cavities which would impede the progress of the ovum, are casual factors. The author has long believed that gonorrhoea is frequently responsible for cases of ectopic pregnancy, and bases his belief upon the fact that in those places, like the large cities, where gonorrhoea is quite prevalent, ectopic pregnancy is often encountered; while in such localities where a better moral tone exists it is not frequent. Not only can slight changes in the tube resulting from old inflammations interfere with passage of the ovum, but also in recent and severe inflammations may the same occur provided only that the entrance of the tube be open. He then relates the case of a 23-year-old primipara of good family history, who five months after her marriage developed the classical symptoms of ectopic pregnancy. At the operation there were numerous recent adhesions encountered, which being separated led down to the tubal mass situated in the posterior cul-de-sac. On examination of the specimen it was found that the right tube was affected by gonorrhoeal pyosalpinx in which gonococci were demonstrated, and there was also tubal pregnancy in the ampulla with rupture of the tube. The author is not inclined to ascribe all cases to this cause, but thinks in this case he has encountered one which is not obscure in its etiology.—*Zentralbl. f. Gyn.* 1907, 382.

THEODORE J. GRAMM, M. D.

THE ETIOLOGY OF PUERPERAL INVERSION OF THE UTERUS. Another interesting case of this accident is reported by Fritsch. He says that heretofore he has been in the habit of amputating the uterus as the easiest way to avoid serious consequences, but since Kustner has shown that these cases may be treated conservatively, he has also adopted the latter course. In order to prevent this accident from taking place, he thinks that three factors must exist: the uterus must have very thin walls; placenta situated at the fundus; the action of strong pressure from above or traction from below. The existence of accidentally thin walls is shown by cases having recurrence of inversion; it was demonstrated while physicians were studying flexions of the uterus some time ago, and was found to be due to a condition of infantilism; it has often been seen during Cæsarian sections; and some cases of abortion and dysmenorrhœa are also due to this cause. The reported case was one to which Fritsch was called in consultation on the fourth day post partum, the temperature being over 104° Far. The attending physician reported that Crede's method of expressing the placenta suddenly became necessary because of profuse hemorrhage, and the uterus inverted. The hemorrhage continued and the condition of the patient was so bad that the attendant feared to examine again, but was compelled to give his entire attention to resuscitating her, which of course was not the correct procedure. After explaining the possibility of failing to replace the uterus so long after the accident, and the likelihood of infection already existing, Fritsch proceeded to try the method suggested by Veit, consisting in reinverting one horn of the uterus and following this with successive portions of the organ. This attempt was successful. The case was then treated with large doses of ergot and irrigations. The temperature fell on the next day, and the patient made a good recovery. He advised that the next labor be conducted under his guidance, and a year and a half later this was done. This labor was brief and easy, but immediately thereafter a profuse hemorrhage set in, and the Crede method was again used. Although no pressure was made from above, the uterus inverted again. This time it was possible to replace the organ easily, after peeling off the partly adherent placenta. Two years subsequently this woman was delivered again, and on this occasion the attending physician, having been warned of the previous occurrences used all means to prevent inversion, but still found the fundus appearing at the os. The author says that this patient undoubtedly has a predisposition to inversion, and believes this to depend upon very thin uterine walls. In discussing the case further he points out that when the placenta is situated upon the fundus, the latter is broadened thereby, and this adds another condition favoring inversion. Particularly under such circumstances is traction upon the cord likely to cause harm.—*Zentralbl. f. Gyn.* 1907, 427.

THEODORE J. GRAMM, M. D

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

SUNLIGHT.—“Kime believes that the best light for the treatment of disease is the sunlight.” This seems to be an answer to our frequent theories whether the time would ever come when the X-ray would be found sufficiently safe to be applied in any of the many usages to the human body without destroying tissue or taking life. There have been so many forms of accidents reported with the X-ray in the past few years that it had become a question in the minds of many doctors if the ray was ever to be of any practical value. Valuable machines were being shouldered out of offices and the medical junk shops and supplies stores found themselves burdened with a lot of white elephants. Quite recently one of the most eminent men in the homœopathic profession and as well a famous and skillful operator in electricity found himself defendant in a suit for \$10,000 for an X-ray burn. Now comes this man Kime, evidently a great man, else he would not be quoted in such brief, summary, and untitled fashion, who asks us all to become sun-worshippers. At last it will become possible for a great slather of doctors, of the ordinary \$2 a day kind, to become specialists without investing in 56-inch cartwheels, or Rub-a-dub coils, galvanic and faradic batteries, or the other electrical machinery, all whereof cost big money, to say nothing of the preliminary tutelage to learn the use of these electrical devices; it will now be both cheap and easy. All the paraphernalia necessary will be several sizes of lenses with blue backgrounds and—the sun. Voilà! All things come to him who waits—and having waited we now rejoice in the early rehabilitation of ourself and our office as Sunlight Specialist. Genl. Pleasanton evidently wasn't so far off after all with his blue-glass theory.—*The American Physician*.

THE BEST METHOD OF INDUCING MAJOR ANESTHESIA IN A CHILD.—Dr. Robert H. M. Dawbarn is quoted as having recommended selecting the hour when the little one was accustomed to going to sleep in the daytime, and then, entering the darkened room noiselessly, transforming the natural sleep into chloroform anesthesia, the child passing from one to the other without awaking. This, with care and plenty of time, could always be done. There was no better way to earn the gratitude of the mother and of doing away with psychic shock experienced by her from seeing her struggling, screaming child going under the anesthetic, and to lessen the risk of shock to the child, both from fright and from chloroform, owing to the much smaller amount needed. The plan, of course, was not at all new,

but he knew nothing so valuable which was so universally neglected by surgeons. When the child is old enough not to have a regular period for sleep in the daytime, we can still employ the same idea by using chloral hydrate as advised by Prof. Winters, who considers it, in childhood, very safe; namely, the same number of grains as of years. A child of seven would thus receive seven grains of chloral hydrate; and two hours later the surgeon can reasonably expect to find him asleep and thus ready for the chloroforming, as just recommended.

GOUTY HEADACHES.—By W. Theophilus Ord, M. R. C. S. Eng., L. R. C. P. Lond. Treatment During an Attack of Cerebral Gout.—Taking general measures first, it is evident that severe cases must be treated by rest in a dark room in the recumbent position. Employed in business as many sufferers are, they will often persevere with work until the pain becomes too intolerable to endure, and this, I am sure, prolongs the attack. However, we are justified probably in using measures to avert the pain, hoping that a patient may continue his work until evening, and that after a night's rest the attack may vanish. For this purpose I have repeatedly proved that two measures are most helpful, they are (1) drinking hot water, and (2) abstaining from food. A slight attack can often be averted, or perhaps postponed, by copious libations of hot water. The reason is a simple one. By freely diluting the blood, the relative quantity of poisonous matter contained in it per volume is diminished, and its effect therefore lessened. Hence when the amount is small this dilution may be sufficient to permit the cerebral arterioles to relax. If no food be taken, except possibly a dry biscuit, and hot water is drunk, many an attack will quickly pass. Why abstinence from food should help is perhaps through the passage of gouty poisons into the blood from the alimentary system being checked, and this, coupled with freer dilution of the blood, enables the kidneys to eliminate the poisonous matter speedily.

I pass on to medicinal treatment. And here one must reiterate the invaluable principle of *similia*, and find the correct remedy afresh for each case in accordance with Hahnemann's directions. I know of no drug that is always useful, but I have obtained valuable aid by many, both cutting short severe cases and also preventing recurrence of the malady, by giving the appropriate homœopathic remedy. I confess it is not always easy to find this, and the first attempt may fail. If relief does not come in twenty-four hours I try another drug. The case described just now was quickly relieved, and I think cured, by *spigelia*. When the pulsations are marked *glonoin 6x* is very helpful, lower than *6x* it may aggravate. *Veratrum viride* helps some cases, and when the urine is offensive, and it often is in gouty conditions, benzoic acid is invaluable both during and between the attacks. One might expect *belladonna* to be indicated, but this old friend has always failed me in this and in other gouty conditions. *Colchicum* also, unless strongly indicated by gastric symptoms, is of no use. *Mercurius*, *lycopodium* and *bryonia* are all occasionally of service. In mild cases I have found *mercurius biniodatus* in frequent doses of the *3x* every hour for a few hours, carry off the headache.

In these days, when relief is instantly demanded and sought for in phenacetine, caffeine and other drugs so eagerly, it may be needful to add

a word as to their use. They have little or no effect in cerebral gout, and the use of caffeine in particular aggravates; neither do the salicylates help, at least during an attack. But I have found 5 to 10 grains of aspirin give immediate relief in severe cases, and have not been able to trace any harm from its occasional use as a palliative. In one case in which aspirin failed, a new preparation named phenalgin removed the severer pains; it is said to be a mixture having antifibrin as its base. I am opposed to the use of these palliatives, except in mild cases where the occasional use of a tablet may enable a worker to continue his occupation by carrying off a threatened attack. When the patient can rest quietly at home they should not be employed, but reliance placed alone on the homœopathic remedy.

Treatment of Cerebral Gout Between the Attacks.—This practically resolves itself into treatment of the gouty condition, with such modifications as the special form may suggest. The subject is too lengthy for consideration here. One or two points only can be touched on in the order of their importance: (1) Relief of mental strain and head-work, with increased open-air exercise; (2) abstinence from butcher's meat in excess, chicken and fish being substituted; (3) no malt liquors and acid wines; (4) coffee should be avoided, and in some cases tea is a potent cause of cerebral headaches.—*British Homœopathic Review*.

PROBLEM OF THERAPEUTICS PROPOSITIONS STATED.—1st. The cell is the morphological unit of life.

2d. The chief manifestation of cell activity is its power of metabolism, and all its activities are brought about, or are accompanied by definite chemical changes.

3d. Cells possess selective affinities for certain chemicals, or chemical reactions.

4th. The body possesses natural protective forces, largely chemical, especially resident in the blood.

5th. Disease is a disturbance of the chemical equilibrium of the cell, resulting in an interference with its power of metabolism.

6th. A remedy is anything which, by its action upon a diseased cell, causes it to resume a condition of equilibrium.

7th. A drug is a remedy efficacious by reason of its chemical action, and the effect of which need no longer be explained on the ground of a mystical "force," or other intangible quality.

8th. Substances are more active chemically the finer they are divided.

9th. The remedy should be given with such accuracy of selection and dose and in such form as to aid the disturbed cell, without interfering with the protective forces of the body, or impairing the functions of other cells.

10th. The attenuated drug, without interference with the normal cells, or body fluids, offers the remedy in a form ready for instant appropriation by the disturbed cell, and hence, in the cure of disease, is more effective than any other possible practice.—Royal S. Copeland, A. M., M. D., Ann Arbor, Mich., in *Medical Century*.

THE UNPLEASANT EFFECTS OF DIGITALIS include the disturbance of the stomach to which reference has already been made, and its so-called cumulative action, and occasionally, an idiosyncrasy of the patient, making men-

tal symptoms prominent. The possibility of a cumulative action has been denied by some authorities. It certainly must be rare in the practice of those who prescribe the drug with discretion. It is, of course, conceivable that careless nursing or self-dosing must produce dangerous symptoms at times. So far as I can understand, it has resulted from overdosing, either by giving small doses too frequently, or large quantities at the usual interval of three times daily; and from neglect to observe proper precautions. When digitalis is being administered, a careful watch should be kept on urinary elimination. While it is not known the avenue by which the drug is excreted, it is acknowledged that its untoward effects are more liable to occur in those instances in which digitalis fails to exert a diuretic action. They have also followed the rapid removal of fluids from the serous cavities by paracentesis. The symptoms of cumulative action are those of digitalis poisoning, and include weakness and irregularity of the pulse, especially manifested when the patient rises from a recumbent or lying posture, præcordial distress, vomiting, and exophthalmos. The mental disturbances are usually the result of overdosing. Occasionally, however, we meet with patients in whom, even the ordinary doses are capable of exciting delusions and hallucinations. Such have been reported by Duroziez, H. O. Hall, and W. F. Baker. Our only recourse under such circumstances is to abandon the digitalis and substitute strophanthus, convallaria, or another of the cardiac tonics.—From "The Uses and Indications of the Cardiac Tonics," by Clarence Bartlett, M. D., in *The Hahnemannian Institute*.

CURE OF CONSUMPTION BY ITS OWN VIRUS.—Take, again, the "cure of consumption by its own virus." This, also, we must claim for homœopathy. We remember reading, many years ago, an article on this very question by the late Sir Benjamin Ward Richardson, in which, if we remember rightly, he opposed the practice, and pointed out how the homœopaths would be laughing in their sleeves at the new turn affairs had taken. No doubt he believed that the homœopaths were such as his imagination pictured them; but the homœopath has no time to laugh in his sleeve, his time being fully occupied in healing the sick. Strange and inexplicable blindness! As if the question of homœopathy was merely the question of a system, instead of a law of nature! Time itself, nay, even eternity, is powerless to undo, or reverse, what was once true. Truth is eternal, and though as a matter of fact, we can only catch a few sparks here and there, nevertheless, all such sparks, so long as they come from the altar of eternal truth, are, like truth itself, immortal. Homœopathy is such a spark.—*British Homœopathic Review*.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

PARANOIA.—The trial of Stanford White's slayer has awaked, not only among physicians, but among the general public, a morbid curiosity as to the real meaning of the term paranoia, and we are daily confronted with the inquirer. Some of us, with only the earliest knowledge of the phrase paranoia, have used it to express a mental aberration or eccentricity with perversion of the will, and have held a paranoid, an erratic person with tendency to insanity, but as Dr. Wagner has said, the wheel is moving all the time, and a book of last year dealing with medical conditions might not apply to present circumstances. This is called by our learned opponents progressive medical science, and may explain to the rank and file the diversity of opinions as to the real condition of this mental trouble. Paranoia in fact seems in our days to stand with open arms to receive in her bosom any systematized delirium with a fixed idea, for the present tendency is to a more restricted grouping of mental diseases, and to a modification of the nosographic tables, more according to causes than to peculiar individualities. We as homœopaths, for obvious reasons, while keeping pace with etiological knowledge, should keep alive also the old terminology, which includes under the generic term of mental degeneration, all the former monomanias. True enough all obsessions, impulsions, phobias, &c., offer certain common characteristics (irresistability, final relaxation), but for those who treat symptomatically and individualize every case of disease, this knowledge is not so superlative. In our day our opponents group together as successive phases of the same chronic delirium, not only all the manias, of persecution, de grandeur, religious, &c., but certain varieties of dementia, and while such grand syntheses, no doubt, facilitate the study of mental disease, for therapeutic purposes, at least, let us retain those valuable and significant terms which so readily guide us to the selection of the remedy.

And passing now to the definition of paranoia, I will commence by stating that the term was first introduced by the Italians, next by Germans, and the other countries followed; though many French physicians seem to prefer systematized psychoses as a better term for this disease. Morselli introduced into the nomenclature of mental diseases a paranoia rudimentaria ideativa, and a paranoia rudimentaria impulsiva. "The first corresponds to the psychic or ideative neurasthenias of the French, which includes all the episodic syndromes, known or unknown, essentially characterized by fixed ideas. In this lesion of the will, the morbid suggestions remain localized in the perceptive sphere. An idea or group of ideas, says Rigis, generally under the form of interrogations, or metaphysical apprehensions, imposes itself upon an individual who is forced to painfully chase them away or resolve them." "In the second type, the conflict between the suggestion

and the will does not remain a purely ideative phenomenon; there is a tendency to action, to the impulsive repetition of a word, a gesture, a ridiculous or unreasonable act, and it is the strife with this besetting tendency that causes again an anxious revolt of the will." "These are conscious impulsions, psycho-motor neurasthenias, including all the morbid syndromes, known or unknown, essentially characterized by an impulsive besetment anxiously combated by the will." "There is, however, a more marked degree of impulsion, in which the will is so enfeebled that its potential energy no longer exists and the distress of the individual is not because he is fatally urged to the act, but, on the other hand, from an agonizing feeling of his inability to accomplish it. These are the aboulic neurasthenias, which comprise all the episodic syndromes, known and unknown, essentially characterized by the abolition of power with persistence of desire, a genuine phenomenon of arrest and inhibition." The mental depression of the neurasthenic, is, according to Mathieu, less a symptom than a tendency to lowering of tone in the commissural union of different spheres of cerebral activity. "It is in truth an enfeeblement of the personality, a diminution of the co-ordinated reactions which constitute the ego."

Fixed ideas, impulsions, and aboulias, are, in the opinion of Regis, the subdivisions to be recognized in the neurasthenia of degeneracy, the different varieties of which may, moreover, coexist or replace each other in the same individual. The same authority unites the numerous manifestations of degenerative insanity under the principal heads, as they present themselves: (1) Under the delirious or hallucinatory type; (2) the lucid or reasoning; and (3) the impulsive or instinctive form. He also subdivides the degeneracies into two groups: (1) Degeneracies of evolution or vices of psychic organization; (2) degeneracies of involution or psychic disorganizations. He asserts that some insanities are not distinct entities, but associations of a generalized simple insanity, mania or melancholia, with some physiological or pathological process in the organism.

From the above we may conclude that the name *brainstorms*, applied by Dr. Evans, to the delusional impulsions of the paranoic, is not far from being correct, as it expresses the character of the paroxysmal insubordination of the embarrassed will.

The prognosis of chronic or typical systematized insanity (*paranoia*) is a serious one. When once fairly established, it is almost always incurable. It is only during the early stages when the delusions have not yet become stereotyped, that we see recovery or at least a temporary amelioration.

(To be continued.)

CHILBLAINS. R Ichthyol., Bals, peruv., of each 10.0, Lanolin., 20.0. M. Sig.: Apply locally. Or: R Ol. camphor., 5.0, Menthol., 0.1, Glyc. tann., 10 per cent., 10.0 Lanolin., 20.0.—Correspondenzblatt für Schweizer Aerzte.

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TABES DORSALIS, WITH AN ANALYSIS OF TWENTY-FIVE CASES.

BY

CHAS D. FOX, M. D., AND W. LAWRENCE HICKS, M. D., PHILA.

(Read before the Germantown Homœopathic Medical Society, June 17th, 1907.)

AFTER consideration of the relative frequency of Tabes Dorsalis, in general practice, as compared with the other organic spinal cord diseases, and on account of the great importance of making a correct diagnosis early in the disease, we decided last year to make a more careful study of our cases, and through the courtesy of Dr. Weston D. Bayley, we are now enabled to make the following report of twenty-five cases at present under treatment in the nervous department of the Hahnemann Hospital and in private practice.

The various terminology applied to this disease is unsatisfactory, no name for it having as yet been suggested, which is scientifically acceptable.

Locomotor Ataxia, the most commonly employed, denominates merely one symptom of the disease, and that symptom is often late in its development.

The term Posterior Spinal Sclerosis has been used, but this is the name of a pathological process, which is also present in other diseases, for example: Pernicious Anæmia, and is also further objectionable because this condition in the disease under consideration is not primary, but a secondary pathological process.

Tabes Dorsalis, or wasting of the back, is a term practically meaningless, but one most generally accepted among neurologists at the present time.

In the report of the Hahnemann Hospital for the year ending May, 1907, the frequency with which Tabes Dorsalis occurs in neurological practice is shown to be 3.4 per cent., or sixteen cases in 465 patients treated for nervous diseases.

The tendency in recent years has been to ascribe to syphilis the most important role in the causation of the disease.

Mobius, Gowers and Drommond are among the most well known who believe that syphilis has been present in all cases of Tabes.

Erb, Hirt, Fournier and Sachs found a syphilitic history present in 90 per cent., Starr 83 per cent., Mendel 75 per cent., Dana 50 per cent.

Erb and Fournier, who first advanced the theory of a syphilitic causation of Tabes, now admit that Tabes probably can occur without there having been any syphilis in the past.

In contradistinction to the great frequency of a syphilitic history in Tabes, Erb found syphilis present in only about 20 per cent. of all other nervous diseases in 6,000 cases. Conversely as to the relative frequency of Tabes and nervous diseases in syphilitics we might quote Fournier, who in 4,400 cases under treatment of tertiary lesions found only 1,866 cases of nervous diseases, which is 42 per cent., and 628 cases of Tabes, which is 14 per cent.

In almost all cases of nervous disease presumably due to syphilis, the so-called primary and secondary stages of the former syphilis have been very mild. The opponents to the syphilitic theory state that in the Japanese and negroes, among whom syphilis is most common, Tabes is rare.

Mettler argues that because of the extreme prevalence of syphilis in these races, there has been developed a comparative immunity of the nervous system to the effects of the disease. In addition to this we might add that the negroes and Japanese are as a whole not exposed to the great nervous stress of the present over-civilized life of the occidental, and consequently their nervous systems are in better condition to withstand the sclerotic effects of the syphilitic virus.

Among other causes which have been assigned to the disease in the past, and which still find their way into the textbooks, may be mentioned acute infectious diseases, prolonged

muscular exertion, sexual excesses, exposure and traumatism, but their etiological association is a matter of much doubt.

In our series syphilis was certainly present in 50 per cent., probable in an additional 36 per cent. and absent, as far as we could discover, in 14 per cent. The positive 50 per cent. agrees with Dana's findings, but is actually much too low, for if there was the slightest doubt as to the patient's history, symptoms or the character of the initial lesion, we class the case as only probably syphilitic, instead of positively syphilitic.

The length of time from the chancre to the appearance of the first symptom of Tabes varies considerably. In one of our cases it was a little less than a year, another two years, the longest period of incubation, if we may call it such, was 23 years and the average $13\frac{1}{2}$ years. Various authors give an average of from five to fifteen years.

The age of the patient at the time of onset of Tabes is from ten to sixty years, but usually from thirty to forty. In our series the ages were from twenty to seventy years, with an average of forty-three years.

As to the sex, males are usually effected about ten times as frequently as females, probably because of the greater nervous stress to which they are subjected, and because of the greater frequency of syphilis in males. We found the frequency as four to one, or about 20 per cent. females.

People of the colored race are rarely effected, and the disease is practically unknown in the full-blooded negro, according to a recent assertion by S. Wier Mitchell. One of our twenty-five cases was a very black negro, but at the time of the examination we failed to question him as to any admixture of white blood in his ancestors, and we have not had an opportunity to inquire since the above opinion was expressed.

Before considering the pathology of this affection and for a better understanding of the morbid changes, a few words should be said of the histology of the spinal cord.

The sensory fibres of the spinal cord are comprised of the axons of cells situated in the posterior spinal ganglia. From these cells an axon springs, which branches into a peripheral and a central end. The central branch enters the cord with other like fibres, forming the posterior roots, which are distributed to the different sensory tracts of the cord. The axons conveying sensations of touch and muscle sense with which in this paper we are particularly concerned, enter the column

of Burdach through the posterior root zone, and ascend in this column, being displaced to the column of Goll higher up in the cord, by the entrance of similar fibres. In the medulla the columns of Goll and Burdach terminate in neuron contact with the nucleus Gracilis and nucleus Cuneatus. Containing the cell bodies of another relay of neurones distributed to the inter-olivary tract and to the cerebellum, in common with the axons from the direct cerebellar tract.

The fibres conveying sensations of pain and temperature ascend in the tract of Gowers in the antero-lateral tract. The direct cerebellar tract is also supposed to convey sensations of muscle sense to the cerebellum. In addition to these, reflex collaterals pass through the gray matter to terminate about the multi-polar cells of the motor neurones in the anterior horn. It is the involvement of these reflex collaterals in their course through the sensory root which interrupts the reflex arc and causes, for example, the loss of the knee and achilles jerks.

Fibres entering the cord from without are called exogenous fibres, while those connecting different segments, that is, the association fibres, are called endogenous. These endogenous fibres, on account of their cells of origin being located within the cord, do not degenerate after lesions or disease of the posterior spinal ganglia or posterior roots. Disease of these ganglia or roots causes an ascending degeneration of the posterior columns of Goll and Burdach, not involving the small tract, just posterior to the commissure containing endogenous fibres, and it is by reason of this posterior degeneration that the older observers made the mistake of considering the posterior sclerosis as a primary condition, instead of a degeneration secondary to the disease of the spinal ganglia.

The question might be asked, Why a uniform degeneration of all of the sensory tracts does not occur? This is explained by the fact that the fibres entering in the posterior roots, to be distributed to the antero-lateral, and direct cerebellar tracts are interrupted in the column of Clark, and in the posterior horn, by the cell bodies of other relays of neurons in the sensory pathway to the brain. Consequently degeneration of these fibres continues only to the cells of the second relay, where it terminates.

It is generally accepted now that Tabes is not an active syphilitic disease, but is what might be called a para, meta, or post-syphilitic manifestation.

Marie formerly taught that the toxin of syphilis caused the degeneration of the peripheral sensory neurones, by its direct toxic action on the cell bodies of the posterior spinal ganglia.

Redlich and Obersteiner claimed that Tabes was due to a chronic specific meningitis, localized in the membranes over the posterior columns and causing a compression atrophy of these columns; but this theory is invalidated by the frequent occurrence of concurrent degeneration in the cranial nerves.

Edinger, of Frankfort, suggests that certain parts of the nervous system are functionally more active than others, particularly the sensory, under the stress of the syphilitic virus this system becomes sclerosed first.

Barker advances the theories of an elective degeneration of the sensory axons in the posterior columns, or an elective degeneration of the cells of the posterior spinal ganglia, with consequent ascending degeneration of the posterior columns of the cord. This selective action of the toxin of syphilis is directly parallel in some cases of diphtheria.

In concluding the pathology, we will summarize by stating that the probable cause of Tabes is some syphilitic toxin, presumably not infectious, which has a selective action on the cells of the posterior spinal ganglia, causing their degeneration, with a secondary degeneration of the peripheral sensory neuraxone, but more particularly of that central axone branch which enters the cord in the posterior roots, and ascends principally in the posterior columns of Goll and Burdach. Consequently there is degeneration of the posterior roots and posterior root zones, and of the exogenous fibres of the posterior columns, with exceptionally the late involvement of the columns of Clark, and indeed other neurone tracts of different functions in the cord. In addition to the degeneration of the posterior spinal ganglia, there frequently occurs involvement of the ganglia of the cranial nerves, and less commonly of the sympathetic ganglia. Through the destruction of the fibres of the posterior columns and the contraction of the newly formed neuroglia tissue the posterior half of the cord may appear shrunken.

The course of the disease is arbitrarily divided into the pre-ataxic, ataxic and the paralytic stages. In the pre-ataxic stage the patient usually complains of lancinating pains, weakness of the legs, failing vision, anæsthesias or paræsthesias, also, less constantly, of bowel and bladder disturbances, sexual weakness or priapism.

On examination the knee jerks are found to be lost, static ataxia and Argyll-Robertson pupil are usually present, and the patient is still capable of carrying on his business, but usually suffers extremely from the pains. It is early in this stage that the diagnosis should be made by the attending physician. In the ataxic stage the patient, if intelligent, will make the diagnosis himself.

In the ataxic stage Locomotor Ataxia appears, the patient has difficulty in climbing the stairs, and walking in the dark, other symptoms get worse, except the pains; optic atrophy makes its appearance or is more severe, and perhaps after many years the inco-ordination becomes so marked that the patient has to take to his bed. This is the so-called paralytic stage, in which there is no actual paralysis, but the inco-ordination is so extreme as to render him helpless. In this stage optic atrophy is almost complete, and trophic disturbances, resulting in bed sores, Charcot joints or diseases of the bone, may be present, and the patient lingers helplessly until death happily appears as the result of some intercurrent disease.

In our series, the first symptoms of which the patient complained are as follows: Amaurosis, 4 per cent.; pain, 68 per cent.; numbness, 8 per cent.; ataxia, 10 per cent, and retention of urine and feces, 4 per cent. These figures correspond with those of most observers, and particular attention should be paid to the pains. These are what are termed lightning or lancinating in character; that is, they are of momentary duration, intense severity and do not follow the anatomical distribution of the nerves, and are apt to appear in paroxysms. These are characteristically severe in the pre-ataxic stage, less so in the second, and usually absent in the third stage.

In our experience about 90 per cent. of the cases have been treated as rheumatism or neuralgia usually by several physicians, and even in hospitals. The pains are apt to be so severe that the patient becomes dissatisfied in a short time with any treatment and consequently changes physicians frequently.

It should be an invariable rule, among practitioners, and one to be rigidly adhered to, that in every case complaining of pains of the above description the knee jerks, pupillary reactions and the patient's ability to stand without swaying with his eyes closed should be examined. This only requires but two or three minutes and in all but a few exceptional cases would rule out *Tabes* at once.

The most frequent misleading initial symptoms are failing vision and disturbances of the functions of the bladder and bowel. All patients complaining of such should always be examined in a like manner.

Not infrequently operation has been performed for some obscure bladder trouble, with results most unsatisfactory to the patient, simply because of an improper diagnosis, due to an incomplete examination.

It must be kept in mind that the percentages in this paper deal with signs and symptoms present at the time the history was made in each individual case, and do not refer to any particular stage of the disease. Our cases were of all three stages, and the average duration of the disease, from its apparent onset, that is, the appearance of the first symptom until our history was made, was five and a half years. This may appear to be late, but it should be remembered that the patient may complain for years of only lightning pains or a failing vision before other associated symptoms appear. Therefore, when we state a sign was positive in 75 per cent. of the cases, we mean that that sign was positive in 75 per cent. of the cases afflicted with the disease, an average of five and a half years, unless otherwise stated. Lightning pains were present in 96 per cent. of the cases and this was the most frequent symptom complained of. Statistics of Mott, Starr, Robinson and Mettler show a frequency of 60 to 80 per cent.

Headache of the specific type, that is aggravated in the afternoon and evening, and causing insomnia, was present in 60 per cent., tinitus 68 per cent., vertigo 79 per cent. and attacks of transient diplopia in 70 per cent.

Sexual ability and desire were normal in 33 per cent., impaired in 51 per cent., and lost in 16 per cent. But early in the disease there is often sexual erythrim, later giving place to impotence. The above figures demonstrate the fallacy of the belief expressed by some physicians that without loss or diminution of sexual ability *Tabes* cannot be present.

Bladder disturbances usually in the form of retention were present in 77 per cent. Alternate attacks of constipation and diarrhoea, or obstinate constipation, were present in 77 per cent., but in view of the close proximity of the spinal representations of the bladder and bowel it is of interest to note the fact that disturbances of both functions in the same patient was not the rule.

The knee jerks were absent in 100 per cent., but Tabes does exist with the knee jerks present in exceptional cases. This can occur only when the disease has spared the upper lumbar segments of the cord in which the reflex arcs for the knee jerk are situated.

In 1905 Pickett reported a case in which he was called in consultation, for some obscure disease of the bladder, which proved upon examination to be of tabetic origin. In this case the knee jerks were present, because the disease was of the sacral type; that is, it involved only the sacral cord; consequently the achilles jerk alone was lost because its reflex centres are in these segments.

Static ataxia was found to be present in 100 per cent. and locomotor ataxia in 84 per cent. Two of the patients, who had no appreciable locomotor ataxia, had been afflicted with the disease for twenty and twenty-one years respectively.

The gait is characteristic, the feet being placed far apart in order to gain stability. The steps are of irregular length, feet lifted high, thrown forward and coming down on the floor forcibly.

Inco-ordination involving the upper extremities was present in 44 per cent. of the cases.

Of the trophic symptoms, perforating ulcer of the foot was found in 8 per cent. and Charcot knee in 8 per cent., but not in the same patients.

Partial syringomyelic dissociation of the senses, that this loss of pain and temperature with a preservation of the tactile sense was present in two cases. In one of these the diagnosis of syringomyelia had been made at the first examination.

The ocular conditions, being of much importance, were studied with considerable care and detail with the following results:

Reflex iridoplegia or the Argyll-Robertson pupil was observed in 88 per cent., of which two cases were unilateral. Iridoplegia totalis in 8 per cent.; loss of the convergence with preservation of the light reflex, in 4 per cent.

Reflex iridoplegia is one of the first of the objective symptoms to appear and for that reason it is of great semeiologic importance in making an early diagnosis. It does appear suddenly, but often a period of gradual increasing sluggishness of the reaction precedes the final inactivity. In a few cases late, and in numerous cases early, there will be a reflex iridoplegia

if the pupil is examined by daylight, when, if examination be made in the dark room by the aid of reflected light, alternating with absolute darkness, a sluggish and more or less imperceptible reaction will be found present. This fact is mentioned in explanation of our percentage, which is high as compared with the series of dark room observations made in the Salpetriere Hospital. By the above method it was found in the service of Dejerine that in forty-eight tabetics the light reflex was entirely lost in only 47 per cent., and incompletely so in 35 per cent., whereas, when examination was made with daylight only 13 per cent. presented incomplete reflex iridoplegia as compared with the former 35 per cent.

Myosis was present in 35 per cent., which is low as compared with the average of other observers. For instance, Erb found it in 44 per cent. and Dercum in 36.6 per cent. This condition is supposed to be the result of involvement, by the tabetic disease process, of the cilio-spinal centre located in the cervical cord.

Mydriasis was found in 5 per cent. and in 70 per cent. the pupils were normal in size, slight difference not being taken into consideration. Mydriasis, when present, is usually associated with iridoplegia totalis or advanced double optic atrophy.

Anisocoria was noticed in 24 per cent. of the cases and ptosis in 13 per cent.

The patient complained of failing vision in 77 per cent. and usually this was one of the earliest symptoms, being actually the first complaint in 4 per cent. of our cases.

Optic atrophy was present in 73 per cent. at the time of examination as determined for us in the dispensary cases by the eye department, and this was associated with an irregular concentric contraction of the visual fields in 50 per cent. Optic atrophy is usually bilateral, but may remain unilateral for considerable length of time before the other eye is involved. It is a simple progressive atrophy of the optic nerve and is not preceded by optic neuritis. Gowers claims to have seen optic atrophy fifteen to twenty years before the onset of ataxia. Benedikts dictum, a peculiar and often observed fact, is that the more severe the optic atrophy the less pronounced are the ataxic symptoms; and Bramwell claims that with the onset of optic atrophy there is an amelioration of other symptoms.

From the study of our cases and the preceding figures we draw the following conclusions:

First. That syphilis has been present in the great majority of cases and has very frequently been benign in character. Whether it is because of this innocuousness and consequent insufficient treatment that Tabes is particularly apt to occur is open to discussion.

Secondly. The importance of a careful neurological examination in cases complaining of rheumatism, pains, urinary, sexual or bowel disturbances and failing vision.

Thirdly. The occurrence of simple primary optic atrophy and irregular concentric contraction of the visual fields is often among the first premonitory symptoms, and is present in the second stage of the disease.

Fourthly. That impairment or loss of sexual desire or ability, while the rule, must not be considered invariable.

HOW NATURE CURES TUBERCULOSIS.—In the serum therapy as applied to the cure of pulmonary tuberculosis I think we will soon have a means of inducing fibroid changes that will be reliable and effective. Experiments with tuberculin have amply demonstrated that its use in large doses sets up in the tissues surrounding a focus a high grade of inflammation always dangerous and often fatal, while in small doses there is established a hyperaemia that leads to the formation of fibrous tissue. Whether any serum can have a counter-active effect on the toxemia remains for demonstration, but if it can induce, or aid in the production, of an impenetrable wall of cicatricial tissue its work will have been accomplished and the patient saved, for it follows thus the line laid out for us by nature. The rest, the generous diet, and the fresh air give to the natural protective powers of the body a strength and impetus that carry weight and aid in the destruction of micro-organisms should they go beyond the zone being changed by the fibrous formation; and it may be that they aid in the formation of anti-bodies or anti-toxins that neutralize the toxins of the bacilli.

Without the happy combination of the general and the specific in treatment I do not think we can consider ourselves as aiding nature when we treat tuberculosis, nor can we look for success. When we give remedies they have their most useful application in meeting the accidents and complications resulting from the disease, and cannot be curative unless it can be proven that they are antidotal to the toxins, or aid in the production of fibrous tissue around the foci of infection.—Walter M. Dake, M. D., Denver, Col., in *Progress*.

[We would ask Dr. Dake if it would not answer every purpose should our remedies awaken conditions in the human organism "antidotal to the toxins;" if we must reason antidotally?]

THE DIAGNOSIS OF PULMONARY TUBERCULOSIS IN INFANCY AND CHILDHOOD.

BY

EDWARD R. SNADER, M. D., OF PHILADELPHIA.

(Read before the American Institute of Homœopathy June, 1907.)

THE diagnosis of pulmonary tuberculosis (fibro-caseous form) in infancy and childhood is more frequently than otherwise a rather difficult problem, for several very manifest reasons. First and foremost of these reasons is that the possible presence of lung disease in the extremely young and in the growing child is not thought of by the general practitioner, and this, too, in spite of the fact that specialists and pædiatrists have been endeavoring to inform the general medical profession that tubercular disease of the lungs in the young is a relatively frequent finding. Another, if possible, equally potent factor making for the non-recognition of these cases, is that the symptomatology presented by the little sufferers from pulmonary tuberculosis is with extreme rarity as typical as the symptom groups found in the period of adolescence, and yet it is perfectly patent to careful observers that tuberculosis can and does attack infants a few days old all the way up to the period of young man and womanhood (when the disease is supposed to be most prevalent) and beyond to the very extremes of old age. Even the modern conception of the infective nature of tuberculosis, with its natural corollary that no age is of necessity exempt from the ravages of the disease, does not seem to arouse the profession from its apathy regarding the now well-recognized frequency of tuberculosis of the lungs in the young. The old idea of bone and brain and glandular tuberculosis in the young should now include the pulmonary and miliary forms. Another fact has not been given due consideration: Undoubtedly the little ones are more exposed to infection than are adults. Of themselves they can take no precautions against the disease, and they are in imminent peril from their tubercular fathers, mothers, and other relatives, and more particularly from the exposure in infected houses, on the floors of which they play with impunity, where their little hands have every opportunity of gathering in not only tubercular but other germs, and of conveying them to their

mouths, and germs, if present, are nearly sure of being conveyed to that dominant organ of the child, the mouth. Still another reason for failure to recognize this disease in the young is because the little ones do not as readily lend themselves to modern "scientific diagnosis;" they are not so available for laboratory methods. A false view, perhaps greater than the one just mentioned, is that because the physical examination of a child's chest differs so much from that employed in the investigation of a grown individual's thorax, therefore the results obtained from physical exploration, if results can be obtained at all, are not as conclusive and reliable as in the adult. Never was there greater error than this. A day-old child's chest can be as successfully examined, and, indeed more satisfactorily, than the nonagenarian's. It is true, some of the methods used in adults are not available, but the methods that are of use furnish results that are sufficiently conclusive for all practical purposes, *i. e.*, the recognition of the presence of the disease, pulmonary tuberculosis.

The symptoms suggestive of the presence of pulmonary tuberculosis in the young are many and varied, and of by no means equal import. Anemia, "indigestion," frequent attacks of inexplicable "colic," frequent seances of diarrhœa, apparently "nervous" or causeless, great head sweats, with or without rickets, easy fatigue without adequate exercise or play, failure to develop properly, slow teething, slight "hacking," but more particularly a cough with a "croupy" ring to it, evanescent or persistent slight hoarseness, adenoids, enlarged tonsils, suppurating tuberculous glands, attacks of fever now and again, without apparent cause, and usually attributed to "intestinal toxæmia"; fever also of a distinctly malarial type, but without the plasmodium in the blood; rapid pulse; (taking into consideration, of course, the normally greater pulse rate at the various periods of life), and great emaciation. Rapid pulse, fever and emaciation are the most suggestive symptoms of the group, and far more valuable than cough and sweats. The emaciation may be slight or of the "living skeleton" order. Of ten marasmatic babies under my care during one of my terms of service at the Children's Homœopathic Hospital of Philadelphia, seven had the demonstrable physical signs of pulmonary tuberculosis, although on admission they were all thought to be simply "nutritional" cases. Fever of any type not otherwise accounted for, is the next suggestive symptom,

and rapid pulse the next, following closely in value rapid respiration, although the respiration may not show any extraordinary changes early in the case, or, indeed at any time. Any one of the symptoms mentioned, however, justifies a careful investigation of the thorax for the possible presence of an active tuberculosis.

So far as predisposing causes are concerned, tuberculosis in the father or mother, more particularly the mother, is the more important, but a history of measles, pertussis, typhoid fever, lagrippe, or hereditary syphilis, are factors that furnish the soil for the development of the pulmonary affection; but none of these is at all necessary as an etiological factor. Soil and seed are the only two essentials. We know what the seed is, but I do not think any one, with all that has been written and reasoned about the subject, can yet define in his own mind just exactly what this pretubercular and predisposing state is. Certain it is that we have seen the rosiest succumb, and the "measliest" escape. Personally I do not find it possible to define a pretubercular state in the young, although I believe that any affection, or any below-par nutritional state, may be productive of the suitable soil for the deposition and development of the seed. But, the seed may be planted, and only attack certain structures and go no further. Over and over again have postmortems demonstrated that the vast majority of infants and children, dead from any disease, show tubercular bronchial glands. So common is this finding, that it excites no comment, and he would indeed be a rash pathologist who would say that a given death was caused by tuberculosis if he found no other evidence of the disease than that shown by a section of the bronchial lymph glands. Most children, then, become infected with tuberculosis very early in life, and the germs and their toxins are taken care of by the bronchial glands, and so long as these glands do not break down the lungs and the little patient is safe, from not only pulmonary tuberculosis, but from the miliary and brain forms of the affection, from the gland source, and yet with this pregnant information from the pathologist before their eyes there are some surgeons who insist on operating and removing non-suppurating tubercular glands from the neck with the hope that they will prevent the spread of the disease. Gentlemen, what about the bronchial glands in these cases that appear to require the indiscreet and unthinking surgeon's knife? They are enlarged

in by a far greater number than are the cervicals, and probably the bronchial glands are always enlarged when the cervicals are. Besides, why remove the only barriers that will prevent the entrance of germs to more vital structures? Is there only one infection? If there were only one, there would be remarkably few deaths from pulmonary tuberculosis, I take it. Besides all enlarged cervical lymph glands are not tubercular by any manner of means. In my opinion, these lymph barriers should never be tampered with surgically when they do not suppurate. If they suppurate, save as much of the gland as possible. We can set it down as a fact demonstrated and demonstrable that bronchial gland tuberculosis is almost universal, that is, pathological, but not clinical, tuberculosis. Yet these glands are, nevertheless, the starting point of many of the cases of pulmonary tuberculosis in infancy and childhood. The abrasions of bronchial mucous membranes left after a common bronchitis, the undiscovered and unresolved bronchopneumonic areas after these colds, or occurring during the exanthemata, in pertussis, in typhoid fever, in lagrippe, unresolved spots of croupous pneumonia, spots of lung rendered relatively quiescent by pleural adhesions, as well as possible contaminations via the blood stream, are all possible ports of entry for the omnipresent bacilli of Koch. Valvular disease of the heart directly predisposes to the development of pulmonary tuberculosis, Flint's law to the contrary notwithstanding, so far as my personal experience goes. Most important factors as suggesting the presence of tuberculosis are the history and "house"—a history of contact with the tuberculous or residence in an infected house.

A brief review of these several factors seems to me inevitable, if one is to approach the subject of the diagnosis in the young intelligently. The diagnosis, to my mind, is to be made by correlating the symptoms of the patient with physical signs to be found in the chest, and never otherwise. These signs vary, of course, not only with individual cases, but also with the progress the disease has made, and also as to whether it originated from a broken down, ulcerating bronchial gland or not. One is led to suspect the possible presence of such a malady as lung tuberculosis in the very young, who make no complaints, by rapid respiration, by rapid pulse, by great emaciation; and in older patients by other symptom complexes or even by a single symptom, not explainable on other tenable hy-

pothesis. As a rule, with few exceptions, a baby or child should be examined with the chest absolutely bare. All inequalities and abeyances of motion should be noted. Exceptionally, inspection furnishes very valuable information, by showing some spot that does not move as freely as a corresponding area. Over this spot, if the child can be made to cry or talk, increased vocal fremitus may be elicited, and also increased vocal resonance during auscultation. The percussion note may be normal (if the lesion is very small), dull, tympanitic or simply hyperresonant. Auscultation may show simple weakening of the respiratory murmur, or it may be increased in intensity, or have the bronchovesicular or bronchial characters. Usually some sort of rales are present over the area or areas involved, if the process be an active and not a latent one, for these tubercular processes often do become inactive, in some instances as smoldering volcanoes and sometimes as permanent scars of the battle won. The text books tell you that localized dullness on percussion, increased vocal fremitus, broncho-vesicular breathing, and rales, are the diagnostic signs, and this is true; but we must remember the skill in technique required to elicit them, and we must accept all sorts of variations on this diagnostic string if we would successfully diagnose pulmonary tuberculosis in children. When we have discovered these signs we must determine what they are due to, for they simply represent consolidation, and, therefore, we must differentially eliminate all possible causes for consolidation before we accept these signs as indubitable evidence of tuberculosis. We must determine whether we have atelectasis, croupous pneumonia, catarrhal pneumonia, tumor, pleural thickening, and, whether, if tubercular, the process is a "dead" one or a live, active one. Latent phthisis can usually be determined by the fact that there is no fever, no rapid pulse, no ill health, no rales. Atelectasis, by making the child cry, and clearing up the dull area. We can eliminate tumor by its rarity, by its situation, by other concomitants; croupous pneumonia by the small area involved, by the history, by the run of temperature, by the disproportion between the pulse and respiration, and by the crisis, if the case ends that way; and thickened pleura, by the inspection signs, by the evidence of dullness, or disproportionate to the respiratory signs somewhere in the neighborhood, over which we have normal breathing; an encapsulated pleurisy, by the history and the results of aspiration.

Usually, however, the differentiation is so readily made, if the case be at all marked, that it is made almost unconsciously.

The usual situations for consolidations in childhood are the same as in adults, with one exception, of which I shall speak later, that is, in the supra-clavicular, infra-clavicular, supra-spinous, inter-scapular, axillary, in the tongue of lung just over the heart, at the top of the middle lobe of the right lung, under the angle of the scapulæ, and in children particularly close to the sternum in the region of the second rib and close to the spine between the fourth and fifth dorsal vertebra, these latter situations being near the division of the trachea into the primary bronchi, and the home of the tubercular bronchial glands. Many cases in children start from broken down suppurating bronchial glands, and the signs, at first, may all be found in the regions last mentioned. In front you may find slight dullness on percussion close to the sternum on the right or left side in the neighborhood of the second rib, and this dullness is distinctive of enlarged bronchial glands if all other causes of dullness here be eliminated, and in children there are very few causes of dullness here except enlarged bronchial glands. On the left side the position of the heart must be taken into consideration in estimating the degree of dullness. Dullness may not be found here, but to one or both sides of the spinal column below the fourth or fifth dorsal vertebræ. The auscultatory signs are variable, and not always reliable unless carefully analyzed for slight differences in intensity, pitch and quality. In this situation the breathing is normally broncho-vesicular or bronchial, and therefore bronchial breathing in itself tells you nothing of moment. If, however, the disparities between the two sides be remembered, much may be gained of a very positive character by auscultation in these situations.

Normally, be it remembered, the respiratory murmur on the left side is more intense, more vesicular and of lower pitch than on the right side, and that the expiratory murmur is longer and higher pitched on the right side. With these disparities in mind, it is possible to make out abnormalities, often with startling distinctness. For instance, if the breathing be more bronchial on the left side, it is abnormal, or if it be simply higher pitched, the same inference of abnormality may be drawn, and per contra, if the breathing is louder on the right, it is an abnormality, and these variations, and differences beyond the normal as to the length and quality of the expira-

tory murmur are numerous and available for diagnostic purposes. These modifications of breathing are produced by the pressure of the enlarged glands upon the surrounding structures and sometimes by actual tubercular infiltration. The latter cannot be inferred unless there be rales of some sort present, and if these rales are persistent, no matter if they do vary in different examinations as to kind, are entitled to the greatest respect as evidence of tuberculosis of the lung, provided the accompanying symptoms agree with such a diagnosis. All these signs, in the situations named, without rales, only diagnose enlargement of the bronchial glands, and we have intimated how common these are, and yet I should not hesitate to accept this enlargement as a sign of beginning or advanced pulmonary tuberculosis, if the symptoms present were not logically explicable upon some other diagnostic hypothesis. Now a word as to rales, not only as to their diagnostic import in bronchial enlargement, but when signs of consolidation are found in other regions of the chest. The value of rales, while extremely great in the diagnosis of an active tuberculosis, it must be remembered, do not always represent lung consolidation, for the dry ones represent mostly obstruction and the moist ones liquid in the bronchial tubes. If a child has had a recent bronchitis, (not necessarily tubercular, of course,) you may not find rales during ordinary respiratory movements, but only developed during acts of coughing. To become of convincing value in the diagnosis of tuberculosis, while they may be found generally over the chest, they should be found in greatest abundance where other physical signs betray the evidences of infiltration or consolidation. Sometimes, however, rales are universally present, and the respiratory murmur not interpretable, and then rales that are distinctly higher pitched in a locality that shows the percussion signs of consolidation are to be regarded as highly significant of tuberculosis. I know the value of rales in diagnosis, but must urge a word of caution against accepting their presence as indubitable evidence of lung breakdown or infiltration, for it is my experience to find many "moist chests" that are not tubercular, not broncho-pneumonic, but simply the unabsorbed products of an ordinary bronchitis. One or more points of consolidation, as shown by either percussion, or auscultatory signs, or in their absence by persistent localized rales, or high-pitched ones in the presence of universal rales, are the physi-

cal signs to be found in the early stages of tubercular infiltration of the lungs. These signs, taken in connection with symptoms, are sufficient to diagnose the disease positively.

I want to say that the diagnosis of tubercular lung infiltration, where valvular disease of a marked type is present occasionally offers some special difficulties in diagnosis, because the symptoms arising from the lung condition induced by the heart affection are readily attributed to the heart alone. I have frequently found phthisis in these cases, where its presence was not dreamed of. I do not propose to enter into a discussion as to why phthisis seems more prone to develop in these cases more than in persons without valvular disease, but simply to state, at present, the practical clinical fact in my experience. The cough and dyspnœa of advanced disease is often attributed to the passive congestion of ruptured compensation. The heart is so enlarged that it frequently condenses the lung so that the percussion is rendered dull, particularly at the left summit, and here may be found distinct bronchovesicular breathing. The presence of fever at times often settles the nature of the consolidation, particularly if there be found lesions on the other side. Thus by taking into consideration the situation of the signs and the presence of a greatly enlarged heart, one should try with particular care to eliminate the heart as a cause of consolidation. These cases do not as a rule offer much difficulty when they are advanced, but mostly in the earlier stage. Later there are rales and signs of cavity, which make the nature of the case only too evident. The discovery of Koch's bacillus is here of great value.

I seldom resort to examinations of the sputa in infants or very young children. Occasionally, after a coughing spell, I may have the attendant reach a handkerchief into the pharynx and catch some of the sputa before it is swallowed, and then put it through the ordinary bacteriological examination; but this is seldom, because if I have my physical signs, I do not need confirmation, and if the sputa were negative so far as Koch's bacilli were concerned, I could not alter the diagnosis. If there is sputa there are usually physical signs. I do not endeavor with a catheter to withdraw the swallowed sputa from the stomach, for the same reasons, and because, if I found the bacilli in the sputa gained from the stomach and could not find physical signs in the lung I still could not make the diagnosis of pulmonary tuberculosis with positiveness, and I can-

not well conceive of a case far enough advanced in which there is sputa enough to be swallowed in which I could not find ample physical signs.

Nor do I resort to the X-ray method of exploring the chest, for if I made out dark areas indicating possible consolidation, or light areas indicating possible cavities (and cavities do occur in the young), I should have to make use of the older methods to determine whether I was dealing with an atelectatic area, with a tubercular area or with a broncho-pneumonic area, and if I ascertained these points by the use of the older methods I would not need the X-rays to confirm them, for X-ray exploration is simply a method of inspection. It does not interrogate the voice, the respiratory murmur, and it does not hear rales, and these, correlated with the physical phenomena, are sufficient for diagnosis, to my way of thinking.

While I can conceive of the possibility of circumstances under which I would employ the tuberculin test for the diagnosis of pulmonary tuberculosis, at this particular time I fear I should have to work my imagination overtime to think of the circumstances. These are some of my reasons for not employing the tuberculin test. Tuberculin is not without ill effects. Tuberculin does not always give the reaction when tuberculosis is present. Tuberculin sometimes gives the reaction when tuberculosis is not present, and it gives it also in actinomycosis, anemia, and in syphilis. It is true, I could very readily exclude actinomycosis, and that a blood examination would tell me whether I had anemia, but I often find anemia clinically with tuberculosis, so I would not know which to attribute the reaction to, and in syphilis of the hereditary type it is well known that it may not show signs of its presence until late in life, and if I obtained the reaction, unless I had signs of syphilis, I would be little better off than if I had not taken the test. But my greatest objection is that if I interpret a successful tuberculin reaction as an evidence of tuberculosis, that tuberculosis may not be in the lungs, but in the brain, in the bone, in the glands, or in some out of the way organ of the body, and may not be responsible for the symptoms present, and I am after clinical, not pathological tuberculosis, and I am at present chiefly concerned at the moment in the diagnosis of pulmonary tuberculosis. Besides, if I have reason to suspect, from the nutritive condition of the patient, and suppose he is in that mysterious pretubercular period of pulmonary tuberculosis, he is

in the "suspect" class already, and my therapeutic business would be to build up the patient, whether he was really tubercular or not, in order to prevent the invasion, and whether he presented a positive reaction to tuberculin or not.

Just a few words in regard to miliary tuberculosis in infants and young children. The diagnosis is exceedingly difficult, and is not often made prior to the postmortem, unless symptoms showing involvement of the brain meninges appear. The diagnostic evidence is mostly furnished by rapid respiration, a peculiar bluish white appearance of the face, a rather tympanitic percussion note, and occasionally a few scattered rales of the crepitant or sub-crepitant type. If a diagnosis of a pulmonary malady is made at all it is usually that of a severe so-called capillary bronchitis, or broncho-pneumonia, but this affection is to be differentiated by the discovery of numerous rather than scanty rales, and isolated spots of dullness. The diagnosis can be made if the nature of the affection be suspected. It is especially liable to take on the miliary form in the first few months of life, as postmortems have shown at the Children's Homœopathic Hospital of Philadelphia.

The points I have especially desired to emphasize are:

1. The ordinary form of tuberculosis of the lungs is not uncommon in childhood.
2. The symptoms present are less marked and characteristic than those in adult or adolescent life.
3. The physical signs are the same sometimes, but differently combined and more difficult of detection than in the adult, and that without the physical signs a tenable diagnosis is not possible, in the present state of our knowledge.
4. That the so-called pretubercular state or soil has not yet been sufficiently defined to be recognized as a clinical entity.
5. That those patients are only "suspects" who do not show physical signs.
6. That modern methods of diagnosis of tuberculosis in the young have so far not simplified the difficulty of detecting tubercular lesions in the lungs and of correctly interpreting them.

THE CIRCULATORY PHENOMENA OF PULMONARY TUBERCULOSIS AND THEIR RELATION TO DIAGNOSIS AND TREATMENT.

BY

G. HARLAN WELLS, M. D., PHILADELPHIA, PA.

Clinical Instructor in Medicine in the Hahnemann Medical College of Philadelphia.

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THE circulatory disturbances associated with pulmonary tuberculosis are among the most constant and most prominent manifestations of the disease. It is my purpose in this paper to discuss the most important of these phenomena and to offer a few suggestions as to how we may utilize them in the diagnosis and treatment of this omnipresent affection.

In the first place, let us consider the relation of pulmonary tuberculosis to organic heart disease. Tuberculosis of the lungs is rarely the cause of an organic valvular lesion. Norris, in a series of one hundred and forty-three autopsies on patients dying of pulmonary tuberculosis, found valvular lesions in thirty-two. Studying these in connection with the clinical histories of 2,344 patients suffering from phthisis, he came to the conclusion that organic valvular lesions occur in association with pulmonary tuberculosis in about two per cent. of all cases. In a large proportion of these, he states, the valvular lesion undoubtedly preceded the onset of the tubercular condition and the number of cases in which the pathological state of the valves could be directly attributed to the tubercular process were very few.

The detailed results of these autopsies are as follows:

Number of autopsies	143
Heart muscle normal in appearance.....	109
Heart muscle pale and flabby.....	28
Heart small and atrophied.....	13
Bifid apex	2
Muscle showed fatty change.....	6
Hypertrophy of right heart.....	4
Dilatation of right heart.....	19
Hypertrophy and dilatation of right heart.	7
Hypertrophy of left heart.....	1
Hypertrophy of left heart.....	9

Hypertrophy and dilatation	6
Endocarditis with valvular lesions.....	32

The investigations of Norris fail to verify the statement that the presence of a mitral lesion exerts a beneficial influence upon tuberculosis of the lungs. My own observation is that the organic heart lesions associated with pulmonary tuberculosis are, if well compensated, of secondary importance and have little effect on the course of the disease, with the exception of pulmonary stenosis, which adds to the seriousness of the prognosis.

Uncompensated valvular lesions of any description render a fatal issue probable if the tubercular process is at all active.

From a clinical standpoint, the functional disturbances of the heart are vastly more common than the organic lesions. *First in importance among those is an increase in the pulse rate. This symptom of pulmonary tuberculosis I have come to regard as one of its earliest and most constant signs.* As the disease progresses we find the pulse rate gradually rising, thus giving us a valuable prognostic as well as diagnostic sign. The following statistics compiled from a series of twenty-five cases recently under my observation in the medical department of the Hahnemann Hospital Dispensary illustrate these facts:

Stage.	No. of Cases.	Pulse Rate Above Normal	Average Pulse Rate.
FIRST	7	72%	85
SECOND	12	91%	105
THIRD	6	100%	119

CHART I.—Showing the rate of the pulse in the various stages of pulmonary tuberculosis.

It is important to state that in classifying the cases mentioned in this paper the following rules have been observed:

First Stage.—Slight physical signs, the total area of infiltration being less than half a lobe, whether at one or more points; sputum with or without bacilli; constitutional disturbances slight.

Second Stage.—Infiltration amounting to an entire lobe, with marked constitutional disturbances.

Third Stage.—Infiltration in excess of an entire lobe, or if

less with developed excavation and severe constitutional symptoms.

The observations just cited are in accord with those of Hutchinson, who found in a series of over eighty cases in the Portland Open-Air Sanatorium, the pulse was weak and abnormally rapid in eighty-four and one-half per cent. Thomson, Berg and Campbell also concur in the opinion that an increase in the pulse rate is an early sign of phthisis, often appearing before the onset of fever. In some cases the rapidity of the pulse is not noticeable with the patient at rest, but becomes evident at once after the slightest exertion or excitement.

Quite as characteristic as the increase in the pulse rate, is the lowering of the pulse tension and the weakening of the muscular sound of the heart at the apex. That this loss of muscular power on the part of the heart is functional and not organic is readily demonstrated by the results of postmortem examinations. Thus in the series of autopsies previously referred to, Norris found the heart muscle normal in appearance in 109, or 76 per cent. of all cases going on to a fatal termination. Hirsch, whose opinion is strongly concurred in by Hutchinson, attributes the early onset of the rapid and weak pulse to an undersized and imperfectly developed condition of the heart in patients subject to phthisis. This theory, to my mind, is not in accord with the clinical or postmortem findings in these cases.

The theory held by numerous writers that the weakening of the heart muscle is the result of malnutrition and wasting which the heart undergoes, together with the other muscular structures of the body, is not adequate to account for the early onset, of the feeble and rapid pulse of phthisis.

The true cause of the rapid pulse of the early stage of pulmonary tuberculosis I believe to be the action of the toxins produced by the tubercle bacillus, exerting a depressing influence on the nervous mechanism of the heart and vaso motor system. This causes a loss of tone in the muscular structures of the heart and of the walls of the blood vessels, with a consequent drop in blood pressure. As a result of this drop in blood pressure we have an increase in the pulse rate, due to an effort on the part of the heart to re-establish the normal arterial tension.

In support of this view I desire to submit the following clinical and experimental facts:

In a series of observations on the blood pressure of tubercular patients, which I recently carried out in the Hahnemann Hospital Dispensary, the full details of which I will refer to later in this paper, the arterial tension was invariably low. Burckhard, Marfan and Naumann, basing their conclusions on a large series of similar cases, unanimously conclude that hypotension is the rule in pulmonary tuberculosis. Clinical evidence, therefore, demonstrates the fact that a fall in blood pressure is one of the most constant symptoms of phthisis, appearing in the very early stage of the disease.

Under normal conditions there exists considerable pressure in the arteries. This is the result of the *vis a tergo* of the cardiac contractions and of the well-marked peripheral resistance due to the state of partial contraction which the muscles of the vessel walls maintain during health. This state of partial contraction is maintained and controlled through the action of two sets of nerves—the vaso-constrictors and the vaso-dilators. The normal blood pressure depends upon a proper balance between the opposing action of these two sets of nerves. The vaso-constrictors are by far the more important in preserving the tone of the general circulation. Their tonus is derived from the vaso-constrictor centre situated in the upper part of the medulla. The toxins produced by the tubercle bacillus find their way into the circulation and exert a depressing action on the vaso-constrictor centre in the medulla. This is followed by a relaxation of the walls of the arteries and the fall of blood pressure so frequently noted in the early stage of the disease. That we should have an increase in the number of cardiac contractions as a consequence of the fall in blood pressure is in direct accord with the classical experiments carried out by Marey in 1859, and reported in the memoirs of the Biological Society, in which he demonstrated that in a normal animal the pulse rate is slowed by raising, and increased by lowering the blood pressure. He further showed that this was due to reflex action on the pneumogastric nerve, as it did not occur after division of the pneumogastric.

Having reached the conclusion that a rapid, vacillating pulse is an early and almost constant sign of pulmonary tuberculosis, the practical value of this knowledge is evident. Diagnostically it is one of the most valuable signs we possess. It usually appears in the early stages of the disease and very often precedes the fever. *If accompanied by a rise of tempera-*

ture in the afternoon, in cases having a suspicious history, we are justified in a provisional diagnosis of phthisis, even though the results of physical and bacteriological examinations be negative. If the pulse rate is not increased when the patient is at rest, the patient should be instructed to walk up a flight of stairs or perform some light exercise, when, if pulmonary tuberculosis be present, the increase in the pulse rate will be much greater than should normally occur. I have observed that even the act of counting the pulse will often cause a marked increase in the number of beats per minute, so easily is the heart disturbed in phthisis.

The prognostic value of the pulse rate in phthisis is scarcely of less importance than its diagnostic value. Norris, in a study of over twenty-three hundred cases, states that tachycardia is always an unfavorable symptom, calling for energetic treatment, and unless it can be abated the result will be unsatisfactory. In this connection it is not well to base an opinion on the first examination of the patient, as exertion or excitement may give rise to an increase in the pulse rate, which is only temporary. My rule has been, if the pulse is over one hundred, to put the patient to bed, and if after complete rest for five days the pulse remains over one hundred, the outlook is not favorable for recovery.

If a pulse of over one hundred and a maximum temperature of 101 degrees F. are persistently present after this period of rest, the prospects of recovery are exceedingly small. Cases occurring in children are exceptions to these rules.

We now come to another of the important circulatory phenomena of pulmonary tuberculosis, which I referred to in a previous portion of this paper, namely, the condition of the vascular tension. As early as 1891 Marfan reported a study of one hundred cases of pulmonary tuberculosis, in which observations on the blood pressure had been recorded. In 97 per cent. of these cases the pressure was below the normal. He found hypotension present even in the incipient stage of the disease. Bouchardt, in a recent publication, confirms his conclusions of several years ago to the effect that in progressive cases of tuberculosis the blood pressure falls and the pulse rate goes up. Afebrile cases which are not advancing he found to have a blood pressure corresponding to that of one in health.

My own observations on the blood pressure in pulmonary

tuberculosis were made on a series of cases, examined in the medical department of the Hahnemann Medical Dispensary. The observations were made with the Riva-Rocci sphygmomanometer, with an eight cm. Stanton arm piece. The original arm piece of the Riva-Rocci instrument has a maximum breadth of but five cm., which is made still less when the instrument is distended by air. It has been found that this narrowness of the arm piece is a distinct source of error, the readings made by it being considerably higher than those made with a wider arm piece. Thayer gives the average normal blood pressure in individuals between the age of fifteen and forty years as between 128-140. Between the ages of forty and sixty he places it between 140 and 154. From my own observations on healthy individuals I am of the opinion that these figures are too high and that the average in normal individuals between the ages of fifteen and forty will not run higher than 112 to 135, with 120 as a fair average. From the ages of forty to sixty I would place the normal average between 130 and 150.

In the series of tubercular patients on which my observations are based the average blood pressure of cases in the first stage of the disease was 108. The average age of these patients was 29 years. The average blood pressure of cases in the second stage was 99. The average age of these patients was 28 years. The average blood pressure of patients in the third stage was 94. The average age of these patients was 31 years. (See Chart II.)

Stage.	No. of Cases.	Average Age.	Average Blood Pressure*	RESULT.		
				Good.	Bad.	Discontinued.
FIRST	7	29	108	70%	—	30%
SECOND	12	28	99	48.5%	16%	32.5%
THIRD	6	31	94	—	100%	—

CHART II.—Showing the relation of the blood-pressure to the various stages of the disease and to outcome of treatment.

*The normal average of blood pressure at the ages cited in this chart is between 112-135.

Of those who came under treatment during the first stage of the disease 70 per cent. are apparently restored to health

and are able to perform their usual occupations. The remaining 30 per cent. discontinued treatment after a few visits.

Of those coming under treatment during the second stage 16 per cent. were apparently cured and were able to resume their usual occupations, 32.5 per cent. were much improved, 16 per cent. grew steadily worse and 32.5 discontinued treatment. Of those who came under treatment during the third stage all died except one patient who is gradually growing worse. From these statistics I conclude that a fall in blood pressure occurs in the early stage of phthisis and that this fall in blood-pressure continues, in direct relation to the progress of the disease.

Having seen the important relation which exists between the condition of the vascular system and a tubercular process in the lungs, we, as practical physicians, come to the question as to whether this knowledge will be of any assistance to us in the treatment of this disease. Woods Hutchinson believes that the treatment of the heart is the most important measure to be carried out in the treatment of phthisis. "Maintain the power of the heart," he says, "and the lungs will take care of themselves."

This view is concurred in by Samson and other authors of wide experience, and while in my judgment it is an extreme one, nevertheless there is a large proportion of truth in it, and no one who has had much to do with cases of this character can doubt the importance of exerting every effort to maintain the functional power of the heart, and as near the normal blood pressure as possible in every case of pulmonary tuberculosis.

If the view which I have previously expressed is correct, namely, that the fall in blood pressure and the rapid pulse of the early stage are due to the depressing action of the toxins of the tubercle bacillus upon the vaso-constrictor centre, it follows that fresh air and hypernutrition, both of which tend to impede the activities of the tubercle bacillus and to antidote the effect of its toxins would be indicated.

A more difficult question to decide is whether the patient should be kept at rest or permitted to exercise. Where the tubercular process is in an active stage and accompanied by a high pulse rate, and a maximum temperature of over 100 degrees F. the patient should be kept at rest. Too prolonged rest, however, tends to impair the vitality of the individual,

to enfeeble the circulation and to retard the progress of the recovery. On this account, as Brehmer has wisely pointed out, as soon as the quiescent stage has been reached and the patient's condition will permit, some form of exercise should be instituted. The character and the amount of the exercise must be adapted to the needs of the individual case. In feeble patients we must begin with massage and passive movements. Later the patient should be gotten out of bed and allowed to walk a few yards, gradually increasing the length of the walk as recovery progresses. Where the patient's strength will permit, the most valuable measure which we have at our command for increasing the power of the heart and toning up the circulation is graduated hill climbing. I am fully aware of the fact that this procedure is capable of working great harm in unsuitable cases, but am quite as sure also that when judiciously carried out in selected cases it exerts a most beneficial action in hastening recovery after the active stage of the disease has been controlled by rest and other measures.

Our best guides as to the effect of exercise are the condition of the pulse and temperature. *If the exercise directed causes a rise of temperature of more than 100 F. and an increase in the pulse rate which remains over one hundred after the patient has rested a half-hour, the exercise is too vigorous and must be diminished or discontinued.* Another condition which must be carefully guarded against in a patient taking exercise is overfatigue. Should signs of this appear at any time the patient must rest at once or irreparable damage may be done. In cases where the effects of exercise are beneficial, we find it evidenced by a gradual increase in the power of the heart, improved arterial tension and a general increase in bodily vigor. Under such circumstances it should be gradually increased as the condition of the patient improves. It may be stated as a general rule that there is more danger from over-exercise than from too little.

In hydrotherapy we have another valuable agent for toning up the circulation. A tubercular patient should be given a bath of some form daily. In febrile and debilitated patients the body should be sponged daily with equal parts of alcohol and cold water, followed by as brisk rubbing as the condition of the patient will permit. In cases in the quiescent stage, a spray or sponge bath should be taken every morning, followed by friction with a coarse towel. The effect of these baths is

to tone up the nervous system, to promote the cutaneous circulation and to raise the arterial tension. The spray or sponge bath are contraindicated in marked debility, recurring hemoptysis and where they are followed by a feeling of chilliness or depression.

We now come to a consideration of the medicinal treatment of the cardio-vascular symptoms of tuberculosis. It has become very popular of late for a certain class of physicians to decry the usefulness of drugs in the treatment of phthisis, and while I am free to admit that they must not be relied upon solely in the treatment of this disease, nevertheless, in my experience, when carefully selected, they are of positive value in every case and because the empiricist and the charlatan have brought discredit on the drug treatment of tuberculosis by the indiscriminate use of opium, morphine, heroin and other similar substances selected with a view to lull the patient into a state of false safety, is no reason why the skilled and competent physician should not apply properly selected remedial agents for the relief and cure of patients suffering from phthisis as well as from any other disease.

Hutchinson is a strong advocate of digitalis in cases where cardiac weakness is a prominent feature. On account of the power of this drug to slow the pulse and to raise arterial pressure it would seem to be especially adapted to these cases. I have seen some remarkable results from the use of this drug in well-developed cases of cardiac asthenia. It is especially indicated where the pulse is irregular as well as rapid. It has been my observation that it is most efficacious in cases which are not accompanied by a marked rise of temperature.

Strychnia is another remedy that is often of great service. The phosphate of strychnia in doses of one grain of the third decimal trituration every three hours exerts a beneficial effect upon the heart and general nutrition. In extreme cases it becomes necessary to employ the drug in doses of one-sixtieth or one-thirtieth of a grain three or four times a day.

Caffeine is a remedy which has received high commendation from writers of wide experience, but I have never used it in this connection.

In advanced cases of cardiac asthenia associated with general debility and exhaustion I have found cocaine to be a valuable palliative. Not only is it a cardiac tonic, but Masso has proven it to be a general stimulant to the muscular structures

of the body, especially after starvation or fatigue. Given in doses of one-quarter to one-half grain four times a day it relieves the distressing dyspnœa so frequently seen in advanced cases and ameliorates the profound sensation of weakness and exhaustion.

Among other remedies which have a special relation to the cardiac and circulatory disorders of phthisis may be mentioned Arsenicum Alb., Arsenicum Iod., Cactus Grand., Phos., Nux Vom., Chin. Ars., and Kali Carb. In the average case of functional cardiac weakness, Arsenicum Iod., Chininum Ars. or Cactus Grand. will be found the most useful remedies. It must be remembered, however, that careful individualization is the key to success and there is no specific drug for the cardiac weakness of phthisis in the armamentarium of any school of practice.

In closing this paper permit me to summarize my conclusions as follows.

1. *A rapid pulse associated with lowered blood pressure and a defective first sound, is one of the most constant and significant signs of early pulmonary tuberculosis.*

2. *The condition of the pulse, taken in connection with the temperature, are the principal guides in the diagnosis, prognosis and treatment of pulmonary tuberculosis.*

3. *A gradual rise in the pulse rate and a gradual fall in the blood pressure are indications of a progressive type of tuberculosis, and conversely when we have a definite slowing of the pulse under treatment, together with a gradual rise of arterial pressure we may infer that improvement has begun.*

4. *A persistently rapid pulse of low tension occurring in a young adult, without other explainable cause, should always arouse suspicion of pulmonary tuberculosis.*

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A REPORT OF THIRTY ABDOMINAL SECTIONS PERFORMED FOR DISEASES IN THE UPPER ABDOMEN.

BY

THEODORE L. CHASE, M. D., PHILADELPHIA.

(Read before the Germantown Medical Society, May 20, 1907.)

IN our endeavor to ascertain the extent of relief afforded by surgical measures, certain deductions made from concise records of pathological conditions found and the methods employed for their relief assist us toward an increasing improvement in the character of treatment, whereby satisfactory, ultimate results may be obtained in future cases. In view of this, I offer for your consideration this evening the following report, comprising thirty cases (thirteen females and seventeen males), presenting thirty-eight separate diseased conditions, involving the organs of the upper abdominal cavity and requiring thirty-one operations for their relief.

DISEASES.

Gallstones	5
Cholecystitis	5
Obstruction of the common duct.....	1
Obstructive jaundice (malignancy)	1
Obstruction of the cystic duct.....	1
Empyema of the gall-bladder.....	4
Adhesions of the gall-bladder and liver....	1
Carcinoma of the gall-bladder.....	4
Carcinoma of the pancreas.....	4
Carcinoma of the stomach.....	1

Carcinoma of the duodenum.....	I
Duodenal ulcer	I
Pyloric ulcer	3
Pyloric stenosis	I
Cirrhosis of liver	I
Sarcoma of spleen	I
Abdominal adhesions	I
Tubercular nephritis	I
Tubercular peritonitis	I

OPERATIONS.

Cholecystotomy	12
Cholecystectomy	2
Gastro-enterostomy	3
Gastro-jejunostomy (long loop)	I
Pyloroplasty (Finney)	3
Liberation of adhesions	3
Curettage of liver	I
Curettage of peritoneum.....	I
Omentopexy	I
Partial extirpation of sarcoma	I
Exploratory celiotomy	4

CASE NO. 1.—*Gall-Stones. Cholecystitis. Cholecystotomy.*

Male, aet. 46, had periodic attacks of gall-stone colic for two years, each attack necessitating confinement to bed from five to fifteen days, as a result of which he became incapacitated for any kind of work.

The removal of several hundred small gall-stones and gall-bladder drainage resulted in prompt relief.

CASE NO. 2.—*Gall-stones. Empyema of Gall-bladder. Cholecystotomy.*

Female, aet. 56, enjoyed good health until ten days previous to operation, when an attack of severe pain over the gall-bladder region occurred, accompanied by a rise of temperature to 105.5 F.

The removal of three large stones, one ounce of muco-pus and drainage of the gall-bladder resulted in complete recovery in three weeks.

CASE NO. 3.—*Gall-stones. Primary Carcinoma of Gall-bladder. Cholecystectomy.*

Female, aet. 52, had symptoms of gastric indigestion for

ten years, but had never suffered acute paroxysms of pain. Occasionally there was a sense of weight and enlargement in the right hypochondrium. Quite recently, while taking a bath, the patient noticed a lump in the region of the gall-bladder. Upon examination the attending physician advised surgical interference. Upon opening the upper abdominal cavity the gall-bladder was found enlarged, adherent to the liver, duodenum and omentum. After liberating the adhesions, the gall-bladder was freed and amputated at the junction of the common duct. During the dissection the liver was lacerated in three places, necessitating suture to control the hemorrhage. Prompt healing followed and the patient returned home at the expiration of two weeks.

CASE No. 4.—*Carcinoma of the Gall-bladder and Pancreas. Exploratory Celiotomy.*

Male, aet. 46, had constant pain in the region of the gall bladder for six months. No enlargement could be discerned by examination, but pressure over the gall-bladder area elicited exquisite tenderness.

Operation revealed the stomach, gall-bladder, pancreas and omentum firmly matted together, with hard nodules throughout. The celiotomy wound was closed and the patient returned to his home in one week.

CASE No. 5.—*Carcinoma of Duodenum. Gastro-enterostomy.*

Male, aet. 64, had been losing weight and strength for one year. Pain was first experienced only ten days prior to operation and was not severe in character. Owing to the cachexia and loss of weight, together with the fact that vomiting had occurred immediately after meals for two months, surgical interference was decided upon.

The stomach was drained into the first part of the jejunum, following which the patient progressed favorably for nine days. On the tenth day persistent vomiting set in and a second operation revealed a kink in the jejunum, four inches below the gastro-enterostomy opening. The kink was held in place by a band of adhesions which was severed, but the patient succumbed seventy-two hours later.

CASE No. 6.—*Cirrhosis of the Liver. Curettage of Liver and Parietal Peritoneum. Omentopexy.* (Liver atrophied to one-fifth normal size.)

Male, aet. 48, had been a regular drinker of whisky for ten years, his daily consumption varying from one to three pints. There had been marked tenderness over the hepatic area for several months. Ascites produced marked discomfort; dyspnoea occurring upon slight exertion. The urine was reduced to one-third the normal output, but chemical and microscopic examinations were negative. Tapping was resorted to at frequent intervals, eight to twelve quarts of fluid being removed at a time. Operation was considered the only means of relief. Upon opening the peritoneum twelve quarts of ascitic fluid were removed. The liver was pale brown in color, and the gall-bladder enlarged, but containing no bile. The liver was about one-fifth the normal size, of stony hardness, with granular areas over the surface. The liver was curetted and rubbed with dry gauze until bleeding was induced. The parietal peritoneum over the hepatic area was subjected to the same treatment. The omentum was turned over and sutured to the peritoneum and to the liver, and also sutured to the peritoneum in closing the wound. The wound healed by first intention. Sixteen days after the operation the abdomen was tapped and six quarts of fluid removed, and for a period of six months tapings were required; but with gradually lengthening intervals. The total amount of ascitic fluid measured 239 quarts. The patient gained in weight while losing fluid, and has been able to return to his business, and at the present time seems perfectly well. The diet in this case has been general, with the addition of some liver taken every day. Alcohol and condiments are avoided. Five grains of ox-gall are taken occasionally.

CASE No. 7.—*Empyema of Gall-bladder. Cholecystotomy.*

Male, aet. 34, was seized with an acute paroxysm of pain, with a temperature rise to 105 degrees F. and pulse 140, five days previous to operation. Upon examination, exquisite tenderness was elicited by pressure over the gall-bladder area. As there was no abatement of the symptoms, operation was decided upon for relief. The celiotomy incision revealed a distended gall-bladder, containing sero-pus, but no stones. Prompt recovery followed.

CASE No. 8.—*Gall-stones. Cholecystotomy.*

Male, aet. 39, suffered from gall-stone colic for years. Over three hundred gall-stones, varying in size from 2mm. to 2cm.

in diameter, were removed, and the wound closed on the sixteenth day. Uninterrupted convalescence followed.

CASE No. 9.—*Cholecystitis. Cholecystotomy.*

Male, aet. 44, had a recent attack of pain in the gall-bladder region with slight jaundice and a temperature of 101.5 degrees F. After one week of medicinal treatment, examination elicited tenderness over the gall-bladder.

Incision revealed numerous adhesions around the duodenum and gall-bladder. Removal of the adhesions and drainage brought a return to good health.

CASE No. 10.—*Multiple Sarcomata of Spleen. Partial Extirpation.*

Female, aet. 22, had noticed an enlargement in the upper abdomen for two months, and an attack of pain ten days prior to examination. Menorrhagia and extreme constipation had persisted for a year.

Operation disclosed three large tumors of hard consistence originating from the spleen. Two of these were removed, leaving one growth, which was attached to and surrounded the aorta. The patient was relieved of pain after recovery from the operation.

CASE No. 11.—*Cholecystitis. Cholecystotomy.*

Female, aet. 59, had dyspeptic symptoms for years. Of late there had been constant pain, dull in character in the gall-bladder region, with a temperature of 101 degrees F.

At operation numerous adhesions were liberated. The gall-bladder contained three ounces of blood-stained bile. Drainage was continued for nine days, after which the patient was entirely relieved of her former symptoms.

CASE No. 12.—*Cholecystitis. Tubercular Nephritis. Tubercular Peritonitis. Exploratory Celiotomy.*

Male, aet. 25, had been ill for two years, was emaciated, had lancinating pains through the entire upper abdomen, but more intense in the region of the gall-bladder, a constant burning sensation throughout the abdomen, no appetite, and frequent eructations of gas.

Upon opening the abdomen, dense, multiple adhesions extended throughout. The gall-bladder, pancreas and intestines were bound together en masse. The wound was closed. The patient remained unrelieved.

CASE NO. 13.—*Pyloric Ulcer. Pyloroplasty.*

Female, aet. 69, had marked dyspeptic symptoms for nineteen years. The ingestion of solid food had been followed by vomiting for six months. Emaciation was extreme.

Finney's operation was performed. Recovery was slow at first, but at the expiration of thirty days decided improvement in digestion was noted, the appetite was good, a liberal amount of solid food could be taken, and at the present time the patient is enjoying better health than for many years.

CASE NO. 14.—*Abdominal Adhesions following Cholecystotomy. Liberation of Adhesions.*

Female, aet. 33, was operated upon six months ago; since then she has been confined to bed with abdominal pain, which is aggravated by every movement of the body. The former cicatrix was removed and adhesions binding the omentum and intestines freed. The hemorrhage, which was considerable, was controlled by suture and the wound closed. Permanent relief followed.

CASE NO. 15.—*Pyloric Ulcer. Pyloroplasty.*

Male, aet. 33, had been under medicinal treatment for two years, but without permanent relief. Relapses recurred from time to time, during which symptoms of acute indigestion, burning in the epigastrium, and vomiting sometimes containing blood were associated with exquisite sensitiveness to pressure over the pyloric area.

The operation revealed a large chronic ulcer undergoing partial cicatrization, which sufficed to narrow the pylorus. Pyloroplasty was performed, following the technique of Finney. The patient returned home on the eleventh day, and the subsequent history is one of relief from all former symptoms.

CASE NO. 16.—*Carcinoma of Pancreas. Exploratory Celiotomy.*

Male, aet. 26, had been ill for two years, complaining of drawing pains in the region of the umbilicus, no appetite, progressive emaciation, and tenderness over the umbilical region.

The celiotomy incision disclosed numerous adhesions throughout the upper abdominal cavity. Blunt dissection revealed an enlarged and nodular pancreas. The hemorrhage following the separation of adhesions was severe, but readily controlled by suture. The patient left the hospital on the twelfth day.

CASE NO. 17.—*Cholecystitis. Cholecystotomy.*

Female, aet. 53, gave a history of diarrhoea and dyspeptic symptoms which had extended over a period of several years. Sensitiveness over the gall-bladder region was a constant feature. Percussion demonstrated considerable enlargement of the liver. Temperature prior to operation was 100 degrees F.

The gall-bladder was found enlarged, of a pale yellow color, and distended with thickened bile. Drainage was maintained for two weeks, after which the patient was relieved of all her former symptoms.

CASE NO. 18.—*Empyema of Gall-bladder. Cholecystotomy.*

Male, aet. 54, had dyspeptic symptoms for years. Four days previous to operation he was seized with an attack of colicky pain in the region of the gall-bladder, with a sudden rise of temperature to 103 degrees F. and pulse 110. Delirium persisted for twenty-four hours prior to operation.

Upon opening the abdomen, the gall-bladder was found enlarged, containing two gall-stones, inspissated bile, and two ounces of offensive pus. Irrigation and drainage were followed by prompt recovery, the patient resuming business at the expiration of thirty days.

CASE NO. 19.—*Carcinoma of Pancreas. Obstructive Jaundice. Cholecystotomy.*

Male, aet. 59, lost thirty pounds in weight within a year. For a month previous to operation he had been jaundiced and had marked tenderness over the entire upper abdomen. During the last ten days of this period, nausea and vomiting were of hourly occurrence.

Operation disclosed an enlarged and nodular pancreas, with numerous adhesions extending to the duodenum and bile ducts, the gall-bladder being distended with bile. The gall-bladder was emptied and permanent drainage advised. At this writing the patient still remains relieved of the jaundice and vomiting.

CASE NO. 20.—*Carcinoma and Empyema of Gall-bladder. Exploratory Celiotomy.*

Female, aet. 61, gave a history of ill health extending over many years. Six weeks before seeking operative relief, extreme tenderness in the upper right quadrant of the abdomen had been constant, together with a temperature of 101 degrees F. and pulse 110, stercoraceous vomiting and offensive diarrhoea.

At operation the gall-bladder, pylorus and pancreas were adherent. Upon separating the adhesions a pint of extremely offensive pus was removed. The wound was drained with tube and gauze. Four ounces of ether were used, the time of operation being fifteen minutes. After operation the patient was shocked; pulse, 160. Strychnia was administered; also normal saline hypodermoclysis, but the patient died thirty-six hours after.

CASE NO. 21.—*Obstruction of Common Duct. Secondary Cholecystotomy.*

Female, aet. 45, was operated six months ago for cholecystitis. The last three weeks of this time she suffered severe pain in the region of the wound.

An incision was made along the former scar and multiple adhesions were found involving the bile-ducts, intestines and omentum. The gall-bladder was drained through the cicatrix of the former wound. Uninterrupted recovery followed.

CASE NO. 22.—*Obstruction of Cystic Duct. Secondary Cholecystotomy.*

Female, aet. 56, had a previous operation two years ago for gall-stones; since which she has never been well, complaining of the same pain in the region of the gall-bladder, with tenderness over the entire epigastrium.

Operation revealed the gall-bladder distended with bile, and a stone located in the cystic duct. Drainage was made, and the patient left the hospital in two weeks completely recovered.

CASE NO. 23.—*Duodenal Ulcer. Gastro-enterostomy.*

Male, aet. 41, had suffered with gastralgia for two years prior to operation, the attacks coming on about one hour after eating and lasting two hours. During the week preceding operation daily hemorrhages occurred from the bowel.

At operation adhesions involving the pylorus, duodenum and gall-bladder were separated, revealing a duodenal ulcer, located one centimeter below the pylorus. Posterior gastro-enterostomy was performed, after which the patient made a satisfactory recovery, leaving the hospital on the fourteenth day.

CASE NO. 24.—*Pyloric Ulcer. Pyloroplasty.*

Male, aet. 26, suffered with daily attacks of gastric distress, hyperchlorhydria and regurgitation of food, the attacks ter-

minating in the vomiting of sour, acid mucus and bile. Sensitiveness to pressure over the pyloric region was constant. Upon opening the abdomen, the omentum was found adherent to the pylorus, duodenum, liver and gall-bladder. The adhesions were especially dense around the pylorus, their liberation producing free hemorrhage, which was controlled by ligature. Stenosis of the pyloric opening was so marked as to permit only the tip of the little finger.

Finney's operation for enlarging the pylorus was performed, the patient left the hospital on the sixteenth day after the operation, and a late report states that all previous symptoms have been relieved.

CASE No. 25.—*Pyloric Stenosis. Liberation of Adhesions.*

Female, aet. 34, had constant indigestion with frequent vomiting attacks over a period of five years. Three months before operation she first noticed a lump in the epigastric region, which was extremely sensitive to pressure.

Through the celiotomy incision, two cicatrices were seen on the anterior wall of the stomach, four centimeters distant from the pylorus. These were evidence of ancient ulceration. Dense adhesions were liberated from the pylorus, and two enlarged lymphatic glands were removed. The patient rapidly recovered, leaving the hospital on the ninth day. The pathologist's report on the removed glands stated that there was no evidence of malignancy. While the patient has improved and there has been no vomiting, occasional attacks of indigestion are reported.

CASE No. 26.—*Carcinoma of Pancreas. Gastro-enterostomy.*

Male, aet. 50, had been under treatment with various physicians for two years, some of whom had made a diagnosis of "a lesion in the stomach," while others attributed the malady to "liver disturbance." Two weeks previous to operation partial obstruction was diagnosed. Vomiting was of daily occurrence.

Operation revealed an enlarged and nodular pancreas, with adhesions around the pylorus narrowing its lumen. Posterior gastro-enterostomy was followed by relief of all symptoms. The patient now has a good appetite and ability to digest his food. He has gained sixty-two pounds since his operation, five months ago. Of course, the ultimate prognosis is guarded.

CASE No. 27.—*Gall-stones. Cholecystotomy.*

Male, aet. 47, enjoyed good health until one week ago, when he was seized with an attack of severe pain in the gall-bladder region, repeated chills and a temperature rise to 103.5 degrees F.

Upon opening the abdomen many adhesions matted together the liver, gall-bladder, bile-ducts, pancreas and duodenum. After liberating the adhesions the gall-bladder was found filled with stones. Drainage was maintained for nine days, after which the wound healed and the patient rapidly regained his former health.

CASE No. 28.—*Carcinoma of Stomach. Gastro-jejunos-tomy.*

Male, aet. 45, had always enjoyed good health until one year ago, when his first attack of gastric pain confined him to bed for one week. Morphia was used to control the pain. After this attack there were alternate periods of constipation and diarrhœa. Three months ago the patient had an attack of vomiting, which recurred every few days, usually after meals. For five weeks prior to operation pain in the upper abdomen had been constant. Two weeks before entering the hospital the gastric contents were analyzed seven hours after the ingestion of food. The entire quantity eaten was removed by lavage. Physical examination demonstrated the presence of a tumor in the region of the pylorus.

An incision over this area disclosed a tumor completely obstructing the pylorus, the growth occupying about one-seventh of the stomach area. The lymphatic glands posteriorly were all enlarged. The jejunum was brought forward and attached to the posterior stomach wall, five centimeters beyond the tumor. Rectal feeding was used for four days, after which food was given by mouth, and at the expiration of nine days full diet was resumed. In sixty days the patient gained forty-two pounds in weight. Ultimate prognosis grave.

CASE No. 29.—*Adhesions of Gall-bladder and Liver. Liberation of Adhesions.*

Female, aet. 36, complained of constant distress and "pulling" pains in the region of the gall-bladder for two years. Careful prescribing gave no relief.

Through the abdominal incision many adhesions were found extending from the gall-bladder to the liver. The gall-bladder

was normal in size. The adhesions were liberated, bleeding controlled by ligature and wound closed. The patient left the hospital on the eleventh day. Two months after operation she reported relief from all former symptoms.

CASE NO. 30.—*Carcinoma of Gall-bladder. Cholecystectomy.*

Female, aet. 34, suffered from constant pain and discomfort in the gall-bladder region for six months. Palpation elicited extreme sensitiveness.

Operation revealed the gall-bladder enlarged to three times the normal size, light in color and very hard. The gall-bladder was amputated at the junction of the cystic and common ducts, after which the wound was drained for twelve days. Rapid recovery followed.

In considering the benefit derived from this series of operations performed for lesions in the upper abdominal cavity we find that there were 20 cases completely relieved. They comprised 5 cases of gall-stones, 4 of cholecystitis, 2 of empyema of the gall-bladder, 1 of obstruction of the cystic duct due to stone, 1 of obstruction of the common duct due to post-operative adhesions, 1 of inflammatory adhesions following a former cholecystotomy, 1 of chronic adhesions of the gall bladder and liver, 1 of cirrhosis of the liver, 3 of pyloric ulcer and 1 of duodenal ulcer.

There were 6 cases wherein partial relief was obtained by operation, as follows: 1 case of multiple sarcomata of the spleen, 1 of carcinoma of the stomach, 1 of primary carcinoma of the gall-bladder, 2 of carcinoma of the pancreas and 1 of pyloric stenosis due to ulceration.

There were 3 cases wherein the abnormal conditions remained unchanged after operation; 1 case of carcinoma of the gall-bladder and pancreas, 1 of cholecystitis associated with tubercular nephritis and peritonitis, and 1 of carcinoma of the pancreas.

There occurred 2 deaths: 1 case operated for carcinoma of the duodenum, wherein the fatal issue resulted from bowel obstruction due to post-operative adhesions, in a patient aged 64, the other a case of empyema of the gall-bladder, the patient's age being 61 years.

There were 11 cases of carcinoma and 1 of sarcoma, which at the present time gives us a high mortality rate either imme-

diate or remote, owing to the fact that opportunity for surgical measures to relieve these cases is withheld, until the disease is well advanced, and every other means of possible benefit exhausted.

If our cases of cancer involving the vital organs of the upper abdominal cavity could be brought to operation in the early stage of the disease, our present death-rate would be reduced to one-quarter or less.

SOME GENERAL SUGGESTIONS IN THE USE OF MEDICAL ELECTRICITY.

BY

WILLIAM F. BAKER, M. D., PHILADELPHIA, PA.

ELECTRICITY is perhaps as often ill used as any of our therapeutic measures and this is so because of a popular demand for its use and also because of a lack of interest on the part of the operator. Electric therapy has its sphere of usefulness and also its limitations as do all our therapeutic agents, and it is only when we reach out beyond this sphere do we find ourselves discouraged and rejecting electric forms of treatments.

From any standpoint whatsoever in the treatment of disease our deductions as to the value of any one of our agencies must depend upon our thorough knowledge of that agent and especially its limitations. By keeping our observations strictly confined to this line of research, we are enabled to fully appreciate our efforts and to arrive at honest and worthy conclusions. This is a word for those who not only decry electricity, but who condemn it, and also a caution for those who maintain electricity to be a cure-all. Perhaps the greatest reason for the disappointment of many in treatment has been the lack of interest displayed in the proper understanding of the essential elements and rules. The association of electricity with the names of diseases has been a great drawback to its scientific use, whereas if the symptom totality were taken into consideration and symptom treatment adopted our results would undoubtedly be better.

It must be remembered that the general actions of electricity are: (1) tonic; (2) sedative.

Rockwell suggests that if the following questions can be answered in the affirmative then electricity in some mode of application can be administered.

(1). Is there any pain to be relieved?

(2). Is there any need and chance for improvement in local or general nutrition?

The wisdom of our selection of the means and current will be evidenced by the results obtained. Briefly let us consider the following:

(1). Differential action of the poles.

(2). Differential action of ascending and descending currents.

(3). How normal tissue may be affected by electricity.

(4). Stages of diseases.

I. DIFFERENTIAL ACTION OF POLES.

The most asked question seems to be relative to the use of the poles. If we were to apply the nomenclature of "applying" and "receiving" electrode, by reason of the law of flow of currents, possibly the subject might seem clearer.

It is very easy to demonstrate the negative pole to be stronger than the positive, hence we find the anelectrotonic region at the positive pole is in a condition of diminished sensibility and irritability, while the catelectrotonic region near the negative pole is found to be of increased sensibility. It is very evident that the negative pole of both currents is the stronger.

This fact leads to the conclusion that irritable parts must be treated by the positive pole.

Where you desire a stronger action, as in the contraction of paralyzed muscles, the negative must be used.

(2.) The direction of currents no doubt plays an important part in the results obtained, notwithstanding the statements of many clinicians to the contrary. This fact remains to be proven and it is well for every investigator to experiment a little along this line, make his own deductions and follow after his proven effects.

(3.) Normal tissue surrounding diseased tissue is benefited by the action of electricity. Electricity applied to healthy tissue does not irritate, but acts as a powerful tonic and sedative.

(4.) Stages of disease. The stage of disease in which electricity is applicable depends largely upon the disease itself and its advancement. Speaking generally, the sedative action of the current can be made use of in acute stages. In chronic conditions electricity cannot be looked upon as a cure-all, but its relief is sometimes prompt and marvelous, especially if the

treatment is continued. In paralysis, where the part affected has been cut off from its trophic nucleus or, in other words, the reaction of degeneration has set in, the effect of electricity will depend altogether on the completeness of that "reaction of degeneration."

Where this reaction is complete there is no improvement to be expected.

Thus briefly have we outlined for a ten-minute talk facts that should fill volumes, and in closing let me urge on you a careful consideration of one of the most valuable therapeutic agents at your command.

A NUGGET FROM THE HOMŒOPATHIC MINE.

BY

W. S. SEARLE, M. D.

T. R., æt. 76, is a stalwart man of excellent heredity and good habits. He has never had a serious sickness. He is tall, erect and looks ten years younger than he is.

About ten weeks ago, during an icy period, he fell in the street and had a slight concussion of the whole spine. A derby hat saved his head. The stiff soreness due to his fall passed away in a few days without apparent ill results. However, about two weeks after his accident, while walking in the street, he felt a sudden weakness of the legs. He staggered as if drunk and had to ask assistance. Acute festination was experienced. He says: "My legs would go—must run—could not stop."

With aid he reached home, and went to bed. I was called to see him the next morning and discovered only a slight rise in temperature, though no elaborate examination was made. Next day all symptoms except weakness had disappeared under hourly doses of the one-tenth trituration of manganum, peroxide. It is recorded in the pathogenesis of this drug that it produces the following symptoms (p. 688, Allen's Handbook):

"Paraplegia.—Paralysis first of lower limbs. He staggers and inclines to run when he attempts to walk."

Within four days Mr. R. entirely recovered and returned to business.

To me this brief history is interesting and important. Why or how "festination," which, so far as I know, has been considered as one of the most important and little understood

symptoms of paralysis agitans, should have manifested itself in such a case, is a mystery to me. Nor am I aware that it has ever been noted in other acute conditions. For this and other reasons, not necessary here to detail, Mr. R.'s case appears to me worthy of record. I will only add that the discovery of such valuable therapeutic nuggets gives an added confidence in the curative capacity of drugs when scientifically applied.

WHAT SHALL WE DO TO BE SAVED?

BY

HARVEY B. DALE, M. D., OSHKOSH, WIS.

THE case against the appendix vermiformis has been ably and exhaustively handled by Dr. O. S. Runnels, in his recent paper on "The Human Handicap." Startling, indeed, is the picture painted of the human ills that are directly traceable to this wretched little remnant of our happy four-footed past. Not alone a few trifling disorders, not merely a handful of serious maladies, but practically all of the grave afflictions to which human flesh is heir are shown to be due to the insidious deviltry of this diminutive intestinal mischief-maker, this "fox long at work in the destruction of the vines." Back of all disease is physical incompetence. Back of this physical incompetence is the vermiform appendix. This is the whole argument, in a nutshell. The facts presented are indisputable, the logic is inexorable, and from the ultimate conclusion there is no possible escape. What a terrible mistake was that, when man decided, in centuries far beyond the ken of history, to rise and to walk on his hind legs!

It is now generally conceded that back of mental morbidity there is always physical defect. Mental states largely depend on physical conditions. The influence of mind over body is not more marked than that of body over mind. Pathological states often control mental processes, and thus disease has been a factor in the making of history, more frequently than the superficial observer would dream. Let us stop and think what this means. Disease shapes destiny. Back of disease is physical incompetence, and back of physical incompetence the vermiform appendix! Thus the chain is complete, and again the conclusion is inevitable. This miserable little tail-end of an erstwhile honored and well-to-do cecum has been a power-

ful, though silent factor in the making of maps and in the swaying of empires!

Was the irascible George the Third tender over McBurney's point? History is silent on the subject, but in the light of all the facts there can be no doubt that he was. Actions speak, they tell the story. Long-range diagnosis has its dangers, to be sure, but in shooting with a rifle the marksman does not have to be near enough to blow powder into his victim's face. Lombroso and Max Nordau have furnished some brilliant examples of long distance diagnosis. They have easily proven degeneracy in men whom they have never seen, and there is no reason why the gunner who is out for appendices should not prove an equally good shot. Unquestionably, George the Third had a bad appendix! Nor was he, indeed, the only distinguished unfortunate, for history bristles with great characters who have shown various morbid manifestations, and who have left crooked footprints on the sands of time. It is a relief to know, however, even at this late day, that a vestigial fragment of intestine was at the bottom of it all.

The knowledge that the appendix vermiformis has been and is such a power in the world is sure to set men to thinking. What are we going to do about it? What shall we do to be saved? These are pregnant questions which promptly arise, and which will not down until they have been satisfactorily answered. Doctor Runnels does not answer them in his paper, but he throws out a broad hint in his reference to "homoculture." He intimates that man should "take a hand in his own evolution," and his previous mention of the tree-grower who removes the dead limbs leaves little doubt as to his convictions in the matter. The appendix is a dead limb *ergo* it should be removed. Cut it out! This is the only logical conclusion of Doctor Runnels's argument.

Now the extirpation of the vermiform appendix, under modern surgical methods, is a comparatively simple matter. The skilled twentieth century operator can do the trick in a few minutes. The one thing that remains, then, is to educate the people to the point where the necessity for a tailless cecum will be duly appreciated. When this has been accomplished, our various and several Legislatures can be made to feel the pressure of public opinion, and compulsory appendectomy can be made an established fact. The dead limbs will be removed under due process of law, and none will dare to question

the wisdom of the procedure. This looks like a long step forward, but the world moves, and something of the kind is sure to come, unless some other way can be found out of the difficulty. The appendix must go—by the knife, if necessary. But is there no other way?

Tolle causam has long been a recognized rule in medicine. In fact, it is only common sense, for it is idle to battle with disease when its cause is still operating. To remove the appendix is to remove the cause of disease, to be sure, but why not go a step farther? Why not remove the cause of the appendix? There is no shadow of doubt that this wretched little malefactor owes its existence to man's overweening vanity and foolish ambition, as evidenced by his reckless determination to stand erect, and to walk on his hind legs. Dearly has man paid for this rash determination, and, now that he realizes the situation, why should he not willingly, even gladly, go back on all-fours, where he belongs? This would remove the *raison d'être* of the bothersome appendix, and in due course of time it would surely disappear. Once again the patient and long-suffering cecum could do business at the old stand and in the old way, without the meddlesome interference of its useless annex. Is not this the ideal solution of a perplexing and threatening problem?

The idea that man should walk on all-fours may strike some superficial thinkers as grotesque and even absurd, but the student of men and of events realizes that nothing is grotesque or absurd to the followers of medicine and its allied sciences. That is to say, there is nothing which has not been believed, and, in fact, clearly demonstrated as true, at one time and another, by those industrious medical investigators who are ever camping on the trail of some new and promising theory. And, as a matter of fact, to walk on all-fours would not be grotesque, it would only be common sense. Even a brief study of man's anatomical and physiological peculiarities will uncover a thousand and one reasons why he is seriously handicapped by his foolish persistence in assuming the erect posture.

Man's head is not hung right for standing erect. His spinal column is not built right for carrying the extra load that it has been forced to assume. His larger joints are all operated at a disadvantage his feet are not properly constructed for carrying the weight of the erect body. His chest expands under tremendous difficulties, in direct opposition to the force of grav-

ity. His abdominal wall is weakest at its lowest point, where it ought to be strongest. His abdominal viscera are not properly supported, and all of the organs perform their functions under discouraging difficulties. These are but a few of the many reasons why man is seriously handicapped when he stands erect. And then, worst of all, he has developed that intolerable little mischief-maker, the appendix vermiformis! Is it not about time that the haughty human race came to its senses? How much longer shall health be sacrificed to pride? Every man, every day, carries his miserable life in his hand simply because he is determined to walk on his hind legs. When will this folly end? Doctor Runnels has boldly sounded the tocsin. This appendix vermiformis, this tacit witness to man's pride and man's folly, offers a problem that must be met, and met without flinching, if the human race is to live and flourish. Again, and yet again, what are we going to do about it? Shall it be mutilation, or restoration? Shall the offending member be plucked out, or shall it be restored to its pristine vigor and usefulness? Where is the Moses who will lead us out of the wilderness? What *shall* we do to be saved?

TREATMENT OF MALIGNANT PUSTULE.—Barlach (*Munchener medizinische Wochenschrift*, April 9, 1907, and *Revue thérapeutique medico-chirurgicale*), following the method of Lejars, uses the thermocautery, but does not remove the pustule. He simply draws a deep gutter around the group of vesicles by successively inserting the fine cautery point deeply into the skin, and when the pustule is thus isolated, he opens it with a crucial incision. Subsequently he does not use the cautery. Then at a distance of five or ten centimetres from the pustule, he makes a second circle by injecting iodine repeatedly under the skin. He uses the ordinary tincture of iodine of the codex (12 parts of iodine dissolved in 100 parts of 90 per cent. alcohol), of which he injects a few drops at each place, using altogether a Pravaz syringeful. In severe cases, he repeats this injection on the following day. If there should be much œdema present at the time, he makes free incisions sufficiently numerous to relieve tension. Compresses of sublimate gauze are placed upon the pustule for a dressing. Occasionally, he gives injections of camphorated oil, if needed. The results of this mode of treatment are excellent. The œdema, which usually is so great, either does not appear or quickly subsides. The general condition improves rapidly and the danger is considerably diminished. The treatment should be instituted as early as possible to get the best results. —*New York Med. Journal*, June 15, 1907.

EDITORIAL

THE NEW YORK MEDICAL LAW A REPROACH TO THE STATE AND A MENACE TO THE PUBLIC.

THE country has recently been treated to a sad spectacle in medical legislation. The old-school practitioners of the State of New York, in order to carry out their avowed plan of crushing homœopathy at any cost, during the last session of the Legislature sold themselves out to the osteopaths in order to gain their political support. As a result of this strange union a bill was passed through the New York Legislature which gives the old-school the control of medical licensure in the State of New York and gives the osteopaths a separate board with power to grant to graduates in osteopathy the privileges of regular practitioners.

By this unparalleled act of political chicanery the allopathic profession in the State of New York have wrought a gross injustice to the members of the homœopathic and eclectic schools, have sacrificed the integrity of the medical profession, have betrayed the interests of the people of their State and have degraded the standard of medical education. Let it be said to the credit of a few of the old-school physicians of New York that not all were party to this crime against their profession and their fellow-men, but that a minority, at least, have not hesitated to speak out boldly against this new law. As evidence of this fact we reproduce below an editorial from the *Post-Graduate*, one of the best-known old-school medical journals in New York. *Every homœopathic physician should read this editorial.* He owes it to himself and he owes it to his school of medicine to do so. And while reading it let the homœopaths of New York realize that it was largely through their indifference and neglect that this law was passed, and let the homœopaths of Pennsylvania remember that it was only through the strenuous and unselfish efforts of a few men that a similar law was defeated in the State of Pennsylvania during the past winter, and that it will only be a short while before we must fight the same fight again. Whatever their protesta-

tions may be, and however sincere individual members of the old school may be in their words of fellowship and of good will to us, a review of the history of medical legislation shows us, alas, that the old-school as a body are ready to deal homœopathy a blow whenever possible and that they do not hesitate to adopt questionable methods of political trickery to accomplish that end. But as the editor of the *Post-Graduate* pertinently remarks, "those who sup with the devil must have a long spoon," and we believe that the action of the old-school in New York will bring down upon their heads such a storm of protest and of criticism from the great body of medical men whose principles and traditions they have betrayed, and from the people, whose interests and safety they have compromised, that the law will be repealed and that further efforts in this line in other States will be made impossible of success.

EDITORIAL COMMENT ON THE NEW YORK MEDICAL LAW RE-
PRINTED FROM THE "POST-GRADUATE" FOR JUNE, 1907.

The recognition of the osteopaths by the Legislature and the Governor of the State of New York was accomplished by the passage of a bill creating one Board of Medical Examiners instead of three. This bill contained a provision by which existing osteopaths are licensed and future boards are provided for, in schools of osteopathic learning to be approved of by the Board of Regents. The Governor gave a hearing to the Homœopathic and Eclectic Boards and old-school practitioners, but it was without avail, so far as preventing his signing the bill. According to the views of the *Post-Graduate*, this bill removes the State of New York from the leading position it had in this country in medical education. As things were, all medical practitioners who pursued adequate studies in the science and art of medicine for a term of four years were admitted to examination and if the examinations were successfully passed, were made practitioners. The State up to the passage of this bill refused to recognize Osteopaths, Christian Scientists, Faith Curers of any kind whatsoever, as practitioners of medicine. This was a proud position, from which the State has fallen.

It was claimed as an argument for the passage of the bill creating one Board instead of three, that it was so important a matter to unite the profession that the osteopaths must be admitted to its privileges.* The profession has not been united

*NOTE.—By the term "uniting the profession" our old-school friends mean the placing the power to grant licenses to practice medicine entirely

by this action. The homœopathic and eclectic practitioners, as a class, are furious over what they consider the injustice of depriving them of what they deem full representation in the Board of Examiners, while the osteopaths are dignified by this great State as regular practitioners. It is true they are not allowed to give any medicines, but this restriction makes the law more ridiculous perhaps than if it did not exist. There would be no objection whatever if the osteopaths were licensed as masseurs, or if they do not like that term, as specialists for diseases requiring manipulation of the body, provided only that they undertook the care of no patients that were not sent to them by a qualified practitioner of medicine. To set them loose upon the community with all the powers of practitioners of medicine, giving them the rights to have the exclusive care of a patient, and then forbid them to give medicines, is to make confusion worse confounded. The confusion has already begun. The osteopaths apply to the Board of Health for permission to give certificates of death; the Board of Health refuses to give the permission because they are not practitioners of medicine. The osteopaths ask for matriculation at the post-graduate medical schools, and the schools decline to receive them because they are not licensed to practice the science and art of medicine in their State or country. They are simply allowed to use one kind of treatment upon any patients, no matter with what disease, who may submit themselves to their charge.

To our mind, those who have made this compromise have unwittingly, *but certainly degraded the State by this legislative action beyond anything that we know in medical affairs in the last fifty years.** For the purpose of creating one Board of Medical Examiners instead of three for three kinds of doctors in medicine, the lawmakers have made a compromise with men that they do not believe fit to be responsible for the sole care of patients any more than they consider Christian Scientists to be so, and they now simply have two Boards of Examiners instead of three. *They have compromised not on a matter of taste, of etiquette, but on a matter of principle.** They have sown dragons' teeth and they will come up armed men. There is certain to be agitation in the medical profession and among the public on this subject as to whether osteopaths are now practitioners of medicine or not, until by law they are relegated to their proper position, as persons entrusted with certain cases where manipulation of the body is important for a cure. We in their hands. If this is done, they assure us, there will soon be only one school of medicine. This assumption on their part is undoubtedly correct.—ED.

(*Italics ours.—ED.)

have only seen the beginning of the trouble. The *odium medicum* will be as profound as the *odium theologicum*. As the English are so apt to say, things should have been let alone, for we were doing very well. Until now we had a guarantee that none but educated men and women could practice medicine in the State of New York. Now we have deliberately authorized a practice that, as applied to general diseases, is the most arrant charlatanism, and we have authorized it by the action of the Legislature and the Governor, prompted by the Committee on Legislation of the State of New York. It will soon be seen that those who sup with the devil must have a long spoon. We heard that it was intimated by a man high in political authority that it was believed that the osteopaths could be kept in order by the Board of Education of the Regents, and that they would not probably obtain what they really thought was given to them in this recognition. We hardly believe this can be so. It is not possible that physicians and statesmen engaged in this compromise with the osteopaths were holding loaded dice.

We call special attention to the leading article quoted from one of our great daily newspapers* on page 637, which presents the point of view of those of us who are not at all agreed with the recent legislation, in a manner that shows a familiarity with the recent medical writing on the subject. It is to be hoped that every member of the medical profession who assisted in what has been done in the State of New York, in the recognition of osteopaths, will have his attention brought to this strong article, evidently from an educated layman, or at least representing the views of educated laymen. We have said over and over again as is said in the close of this article, that there is no reason why an osteopath should not pass the same examinations as a man who wishes to practice medicine in any other manner. Things cannot be permitted to go on as they will go on now, without danger to the community, and we are of the opinion of those who believe that nothing is settled until it is settled right.

All honor to Governor Stuart, of Pennsylvania, for vetoing the bill passed by the Legislature of Pennsylvania for creating a fourth Examining Board composed of osteopaths in the State of Pennsylvania.

**New York Sun*, May 21, 1907. This editorial was published in full in THE HAHNEMANNIAN MONTHLY of June, 1907.—ED.

THE SIXTY-THIRD ANNUAL MEETING OF THE AMERICAN INSTITUTE OF HOMŒOPATHY.

THE sixty-third annual meeting of the American Institute of Homœopathy was held at the Jamestown Exposition, June 17th to 22nd. Owing to the failure on the part of the Exposition management to complete the buildings they had promised to the Institute as a place for the meetings, and to the general lack of organization of the entire Exposition, the local committee of the Institute were seriously handicapped in their work. Through their efforts, however, they managed to secure suitable rooms for the business meetings of the Institute, and for the sessions of the various bureaus and societies in the Inside Inn, and it was here the Institute met instead of in Convention Hall, as had been expected.

The character of the papers read at this session was excellent. Especially interesting and profitable were the meetings of the Bureaus on Homœopathy, Materia Medica and Clinical Medicine. We regard it as a sign of great significance that the ablest papers and those in which the greatest amount of interest was shown, were devoted to those subjects which are the special field of homœopathists. Considerable attention was paid by several writers and speakers to the subject of artificial immunity and treatment by serotherapeutic measures. Attention was called to the recent developments along this line as the result of the work of Wright and other bacteriologists and pathologists.

It was pointed out that the relation of the substances employed to the disease which they are supposed to cure, as well as the doses which experience has demonstrated must be employed, are very similar to the principles of selection and usage laid down by Hahnemann. Now that we understand clearly that the cure of bacterial diseases is brought about through the activities of the cells of the body, resulting in the elaboration of certain specific substances which antidote the toxins produced by the organisms and also destroy the organisms themselves, the folly of the old-school method of endeavoring to cure these disorders by the introduction into the body of antiseptics which theoretically are supposed to enter the blood and kill the germs by direct action, becomes at once evident. In fact, we now see that not only are such methods use-

less, but it may be stated that they are positively harmful and dangerous, vitiating the activities of the living cells and interfering with the natural processes of immunization. On the other hand, the reasonableness of the homœopathic method of selecting drugs for the cure of disease for the purpose of stimulating the vital powers of the living cells to the formation of immunizing substances is at once established.

Thus, while recent discoveries in bacteriology and allied sciences have proven the principles on which old-school therapeutics have been based for the past century are fallacious and harmful, they also indicate the reasonableness of the principles advocated by Hahnemann, for *homœopathy is the only system of therapeutics which has laid stress upon the administration of medicinal agents for the purpose of stimulating the vital powers of the living cells in order to bring about a cure from disease.* The only link lacking to complete the chain of evidence is the demonstration of the fact that drugs, as well as the toxins of disease, are capable of stimulating the cells of the body to form antitoxic and antibacterial substances. Recent reports from investigators in both schools indicate this step has already been partially proven at least, and in a short time the evidences will be complete. Should this fact be established by the work of their own investigators it is hard to see what ground the old-school will have left to stand on, and there would be nothing left for those who are sincere and honest to do but to acknowledge the truth of homœopathy.

As several speakers at the Institute pointed out, this step on the part of the old-school is far from probable, and, judging from the experience of the past, it is most likely that they will invent a few new names, alter the phraseology employed by Hahnemann somewhat, and announce to the world that they have made a "new discovery." The literature of homœopathy is so extensive, however, and the principles and practice of homœopathy have been so clearly laid before the public, as well as the medical profession, that such presumption on the part of the dominant school could only pass as the grossest plagiarism, and their claims as "discoverers" in this department of therapeutics be received only with ridicule.

THE VIABI EXPOSURE.

THE credulity of women is proverbial and the manufacturers of patent nostrums have found no more fertile or more profitable field in which to ply their trade than "female troubles" and "menstrual disorders." Scarcely a woman comes into our office who is not convinced that she has, did have or will have some dire and dreadful affliction of the class that is popularly known as "female trouble." It is not to be wondered at, therefore, that a preparation like "Viavi," which claimed to be the long-sought-for specific for all the ills peculiar to woman, should, under a skilful form of advertising, have attained a widespread reputation and have netted its makers large sums of money.

The April issue of the *California State Journal of Medicine* contains an elaborate report of the "Viavi" treatment, its promoters and its literature. From this report we learn that the "Viavi" treatment was started about twenty years ago by two young men in San Francisco with a very small capital, but highly developed commercial ability. The success of their "idea" may be judged from the fact that to-day they own some of the most valuable properties in San Francisco.

The secret of their success has been largely the result of three factors:

First, the way in which the "Viavi" was advertised. The ordinary method of advertising in the papers and magazines was abandoned and women were employed to represent the company in each community. This agent obtained the names of women who were known to be suffering from some disorder or supposed disorder of the genital tract and personally solicited them to try the wonderful merits of "Viavi." The superiority of this method of introducing the remedy as compared to newspaper advertising is at once apparent. Second, to the enormous price of the "Viavi." A medicine which is so expensive must, of course, be very rare and very valuable. The therapeutic value of this suggestion no doubt constitutes a very important element in the benefits which have occurred from the use of the remedy. Third, to the fact that the manufacturers urged upon women the importance of keeping the vagina clean by means of frequent douches. This is excellent advice and of itself is sufficient to bring about a cure of many local and functional disorders of the genital canal.

In regard to the composition of the "great Viavi," the *California State Journal of Medicine* states that some of the capsules were submitted to a firm of analytical chemists, who reported that "the capsules contain no morphine, and as far as we are able to determine they contain nothing but the extract of hydrastis and cocoa butter." These capsules are used in the vagina, while the ointment is rubbed into the back. This is done, the makers tell us, in order that more of the "Viavi" may be absorbed into the system.

The literature published by the company is very extensive and very alluring. Leucorrhœa is described as the "very life force ebbing away," and so we might go through a list of statements calculated to terrify the patient at the thought of the awful condition into which she is drifting, and which can only be cured by using "Viavi" at once. But why should we go on? It is the same old story, one which is repeated every day, and which will continue to be repeated as long as human nature exists as it is now. Amusing, you say. Yes, it is laughable in one respect, but it is not for purposes of amusement or of ridicule that we call attention to this example of charlatanism. Unfortunately, there is the pathetic side as well and no one, perhaps, except the family physician, knows what financial sacrifices and what physical suffering are often entailed upon women as the result of the ignorant and unintelligent use of patent nostrums. While it is true the physician is usually accused of self-interest or of prejudice when he attempts to warn his patients against the indiscriminate use of drugs of whose composition they know nothing, in the treatment of diseased conditions of which they know less, nevertheless duty demands that he speak out in condemnation of what he knows to be useless or harmful, even though it be more to his advantage to remain silent.

THE X-RAY TREATMENT OF BASEDOW'S DISEASE.—Freund reports five cases of exophthalmic goitre in which very favorable results were obtained from the use of the X-rays. He alleges that in this disease the X-ray meets the causal indication. It always acts favorably on the bodily weight and on the nervous symptoms while it causes the cardiac trouble, the goitre, and the exophthalmos to disappear. The soft, vascular, and compressible goitres furnish the most favorable prognosis, and the symptoms retrograde the quicker the more recent they are.

GLEANINGS

THE DIAGNOSIS AND TREATMENT OF CARDIAC DEGENERATION APART FROM VALVULAR DISEASE. R. H. Babcock discusses this subject with special emphasis on the treatment. He divides the cases into two clinical groups: (1) Those in which the diagnosis is comparatively easy and rests on good data, and (2) those in which the diagnosis is by exclusion or inference, the data being few but often quite significant.

In group 1, certain clinical evidence is available. The individual is usually past middle life, the significance of age increasing with years. There may be a history of preceding infection or intoxication. Certain subjective symptoms, angina pectoris, dull præcordial pain, breathlessness especially nocturnal, a combination of nervousness, anxiety and air-hunger, and vertigo are often of diagnostic aid. Objectively, peripheral arteriosclerosis, moderate dulness in the first right interspace close to the sternum, a ringing and metallic or clanging quality of the aortic second sound with or without a systolic area murmur in the same area, and exaggerated pulsation of the subclavian arteries which arch high upward above the middle third of the clavicles are suggestive. Bradycardia is occasionally present, but much more common and significant is tachycardia disproportionate to exertion. Babcock further thinks a highly important sign an increase in the deep-seated cardiac dulness. In summing up, it is said the diagnosis of chronic myocarditis is warranted if symptoms of cardiac incompetence develop in a person past middle age whose arteries and heart present clinical evidence of sclerosis, on the one hand, and of dilatation or hypertrophy with dilation, on the other. The addition of angina pectoris or cardiac asthma clinches the matter.

In group 2 are included those cases of sudden death occurring in individuals supposedly sound but past middle life. The data are scanty and the diagnosis almost assumed, but Babcock gives us valuable hints. In those in the latter half of life, the discovery of hypertrophy warrants the inference of degeneration. The diagnosis of hypertrophy may be based on hypertension of the arteries and an intensified aortic second sound in connection with careful percutory determinations. It is pointed out that the relative cardiac dulness is not necessarily normal because it reaches to and not beyond the left nipple; rather must the transverse area be measured and if dulness reaches more than 9 to 10 cm. to the left of the median line at the level of the fourth rib, enlargement may be considered present. Auscultation of the heart after unusual exercise is a useful procedure and often elicits the soft, systolic apical blow of muscular mitral insufficiency. Of course, the later development of any symptoms and signs of group 1 renders the diagnosis comparable to cases of that class.

The treatment is considered under the separate heads. In group 1 the great value of rest is first emphasized; but we are then cautioned against too much rest with the consequent loss of the beneficial muscular activ-

ity. Passive exercises may be first introduced with massage and resistance movements. The virtue of the Nauheim is high praised. Medicinal agents receive but brief mention with the exception of cathartics and morphine. Babcock advocates the daily use of a bland cathartic and the frequent employment of small subcutaneous doses (1-10 to 1-8 gr.) of morphia. The latter not only exerts a sedative and hypnotic action but also stimulates the heart. Objections to the use of the purge and the morphia are met with the statement that there is not much to hope for the case anyhow. In group 2, the treatment is, as far as possible, preventive. The patient is to be informed of his condition and all unnecessary and hazardous exertion, mental or physical is enjoined. Medical gymnastics and properly supervised exercise is recommended. Medicines play but a small part.

The subject of myocardial degeneration and treatment is at all times a difficult and unsatisfactory one to discuss even by an expert, and though Dr. Babcock has handled the matter with his usual skill, yet we are still convinced that we are dealing with one of those scenes in medicine where the diagnosis is presumptive and the treatment is apologetic.—*The American Journal of the Medical Sciences*, May, 1907.

"DOCTOR" WHO "CURES WITHOUT DRUGS" IN NEW YORK WITHOUT A LICENSE IS GUILTY OF A MISDEMEANOR. The Appellate Division of the Supreme Court of New York has recently handed down an interesting decision construing the New York statute which provides that "any person who, not being then lawfully authorized to practice medicine within this State and so registered according to law, shall practice medicine within this State without lawful registration . . . shall be guilty of a misdemeanor." The decision affirms the conviction of a doctor for practicing medicine without being lawfully authorized and registered, in violation of law.

It appeared from the evidence that the defendant had issued a business card bearing the inscription "Mechano-neural Therapy," which he said signified mechanical nerve treatment. One of the witnesses in the case testified that she had called upon the defendant, stating that she was troubled with severe headaches, nervousness and vomiting spells. He assured her that he could restore her to health without the use of drugs. In answer to her question as to his ability to cure without drugs he said. "Yes, I find I can cure without drugs. I can cure all diseases that any physician can cure, without drugs, and also diseases that they cannot cure with drugs." She inquired whether a certain pain in her arm indicated rheumatism and he told her that she was too young to have rheumatism, but that the trouble came from her stomach and was in the nature of malaria and stomach disease. The doctor examined her chest, back and throat, felt her pulse and looked at her tongue. He then directed her to drink a quantity of lukewarm water with salt in it, which he gave to her in spoonfuls, and advised her to abstain from eating pork, potatoes or any kind of sweets. This was followed by his regular massage treatment, which was applied to the patient's spine and lasted about an hour. The defendant testified in his own behalf that he was a graduate of the Mills Training School, attached to Bellevue Hospital, and of the College of Mechano-Neural Therapy of Atlantic City, N. J. This, however, did not give him the

right to practice in the State of New York, nor the right to take the prescribed examination to determine his fitness to practice. It was held that to confine the words "practice medicine" used in this statute to the mere administration of drugs or the use of surgical instruments would be to eliminate the very cornerstone of successful medical practice, namely, the diagnosis. It would rule out of the profession those great physicians whose work is confined to consultation, the diagnosticians, who leave to others the details of practice. In the language of the court: "When we find, as in this case, a defendant holding himself out by sign and card as a doctor, with office hours, who talks of his patients and gives treatments, who makes a diagnosis and prescribes diet and conduct and remedies, simple though they be, and who asserts the power to cure all diseases, and who takes payment for a consultation wherein there was an examination and determination of the trouble—that is, a diagnosis—as well as payment for subsequent treatment, even though no drugs were administered, we must hold that he comes within the purview of the statute prohibiting the practice of medicine without being lawfully authorized and registered."—*People v. Allcut*, 102 N. Y. Supp. 678.—*Medical Rev. of Reviews*.

INTESTINAL PERFORATION IN TYPHOID FEVER. Blake in an article in the *New York Medical Journal*, (Feb. 23, 1907,) discusses the symptoms of this serious condition and describes the operative technique he employed in his series of cases.

The first thing that happens when perforation occurs is leakage of intestinal contents into the peritoneum. This produces irritation before it can be said to have caused a true inflammation, and it is upon the symptoms of irritation that our diagnosis should be based. These are pain, tenderness, and, most important of all, muscular rigidity. This symptomatic syndrome is present in a great majority of cases, although one or more of the symptoms may be absent, but usually when so some of the subsidiary aids to diagnosis are present. These are chiefly a sudden change for the worse in the patient's condition; he may sweat or shiver, his pulse may rise slightly or his temperature fall, free gas may be present in the abdomen, as evidenced by diminished liver dullness, and, lastly, there may be leukocytosis.

Blake does not consider shock a contraindication to operation, as he has repeatedly observed that the administration of ether removes shock in these patients, the pulse at once improving and the color returning to the face.

The incision is made direct through the outer third of the rectus muscle, the direction of the incision conforming to that of its fibres. As soon as the abdomen is opened the finger is introduced and the ilium is picked up close to the ilio-colic junction. The first three feet of the ilium are rapidly looped over and, if perforation is not found, the cecum and appendix are inspected. Perforations are usually closed up to five millimeters in diameter with three continuous Lembert stitches, the middle stitch being over the center of the perforation. As soon as the stitches are introduced the ends of the sutures are tied together, thus averting the aperture. Larger perforations are closed according to the indications, care being taken not to narrow the lumen of the gut to a diameter less than one-half an inch.

As soon as the perforation is closed the intestine is dropped back in the abdomen, a two-way irrigator is introduced and the abdomen flushed with some saline solution.

In the after-treatment the head of the bed is only slightly elevated, as these patients cannot stand the typical Fowler position, inasmuch as they are accustomed to lying flat on their backs. If vomiting sets in, gastric lavage is done. Rectal irrigations are given for one-half to three-quarters of an hour every four hours.

From the author's experience, he concludes that he would never refuse to operate upon a patient of typhoid perforation unless he was actually dying.

TYPHOID FEVER, INTESTINAL PERFORATION IN. Perforation of the bowel in typhoid fever is more common than is generally supposed, occurring once and a trifle over in every three deaths. The most common time of perforation is between the fourteenth and the twenty-first days. In 92 per cent. of the cases of the present series the perforation occurred between the second and fifth week inclusive. The earlier cases were probably perforation in a relapse; now and then perforation may occur without evidence of previous illness. This complication occurs in cases of all grades of severity, from the ambulatory to the hæmorrhagic type. It is most common in those with moderate (25 per cent.) and severe (50 per cent.) infection (75 per cent.). It is more common in the hæmorrhagic than in the mild cases (10.8 per cent. to 8 per cent.).

The ileum is the common site of perforation (88 per cent.); the majority occur within twelve inches of the ileocæcal valve; the appendix and colon, respectively, were the next most frequent sites of perforation in this series of cases. Pain of some kind is present in 75 per cent. of all cases. In 50 per cent. of the cases the onset is sudden and severe and of increasing intensity, localizing itself to a special zone. In 20 per cent. of the cases the pain is of slow onset, not localized, with general distribution. In some cases (12 per cent. of this series) no pain is complained of, and the usual symptoms of perforation are absent. Tenderness and rapidity are present in from 75 to 65 per cent., respectively, of all cases, and are usually combined; in some cases either one or the other may be wanting; rigidity especially may be absent in cases with rather a pendulous and relaxed abdominal wall.

When perforation is suspected the temperature should be taken every hour; only by this means can the immediate rise and slow fall to normal or subnormal which often occurs be detected; in some cases, and especially those of extreme toxicity, no noteworthy change at all in the pulse, temperature, or respiration can be detected when perforation occurs. Diagnosis is then only an inference. Distension (if absent during the course of the disease and at the time of suspected perforation) is a late symptom of perforation. The obliteration of the liver dullness is not a reliable sign of perforation.

The study of the leucocytes is of little aid. In a few cases their increase is such as to assure the diagnosis. In a considerable number of cases there is a decided reduction in leucocytes after symptoms of perforation. Differential counting is not of practical use.

Before being assured of the diagnosis, right-sided pleurisy, pneumonia (especially in the young), cholecystitis, acute gastrointestinal indigestion, femoral and iliac thrombosis, appendicitis, peritonitis without perforation, cystitis, rupture of a mesenteric gland, or even hæmorrhagic exudation into the abdominal muscles (Zenker's degeneration) should be considered. Even then mistakes in diagnosis will be made.

While nature will infrequently close one, two, or even three perforations, the only rational procedure when perforation occurs is operative interference. No case is too desperate for the attempt. Not infrequently the so-called mild cases succumb, while very ill ones recover. The diagnosis made, time for operation has arrived; its important point is rapidity. Closure of the perforation and drainage is all that is needed; fifteen to twenty minutes should suffice.—J. A. Scott, *New York Medical Journal*, February 9, 1907.

THE TREATMENT OF PULMONARY TUBERCULOSIS BY TUBERCULIN IMMUNIZATION.—Trudeau has carried on experimental researches with the use of small doses of tuberculin in the treatment of pulmonary tuberculosis for several months, and concludes that we have in this agent a valuable, though not a universally applicable means of controlling the progress of the disease. The part played in this process by the various antitoxins, agglutins, opsonins, etc., is not yet understood, but it must be taken for granted that they are all factors in the attempt to protect the body against bacterial invasion. In making the tuberculin for immunization purposes Trudeau has employed two methods. B. F. is made by growing bacilli obtained from human sources on a liquid culture medium, filtering out the bacilli and adding one-quarter of one per cent of carbolic acid. B. E. consists of an emulsion in glycerine and water of the pulverized bodies of virulent tubercle bacilli. Reasoning from what we know of artificial immunity, B. F., which contains the toxins elaborated by the growth of the germs in a liquid medium, would be more likely to produce an antitoxic immunity, while B. E., which is an emulsion of the crushed bodies of the bacilli, would be expected to produce a greater degree of antibacterial immunity. Trudeau has generally employed the B. F., as he finds it easier to control in its effects. He states that the most important point in the treatment is to begin with a very small dose, as it is necessary to guard against producing signs of constitutional disturbance. He usually begins with an injection of 1-10000 of a milligram of B. F. and increases the dose gradually, always avoiding any marked constitutional disturbance. If too large doses are used he finds that a hypersusceptibility to the disease is produced, which renders it exceedingly difficult to produce any degree of immunity. The injections are made every three or four days, except in the more advanced stages of the treatment, when the dose is rather large, they are made every week or ten days. The length of the treatment is from six to twelve months. It is a mistake to attempt to shorten the time by increasing the dose or by shortening the intervals. Whatever degree of immunity is produced by the treatment is produced only very gradually, and attempts to hasten the process usually result in a marked reaction followed by signs of intolerance which considerably lengthens the duration of the treatment. Tolerance to tuberculin is looked upon as an excellent

prognostic sign. Trudeau does not consider this form of treatment useful in acute cases or in those with a high temperature range. His good results have been obtained in chronic cases in which the maximum temperature was not over 100F. When the case has been treated by fresh air and hypernutrition through the stage of active inflammation, and has changed into a chronic case that fails to progress toward a cure, tuberculin injections offer a prospect of further improvement. Not only does it exert a beneficial action in chronic cases, but he also believes it is possible to abort incipient cases if the treatment is begun early.—*Amer. Jour. Med. Sciences*, June, 1907.

TREATMENT OF DIABETES.—Dieulafoy does not approve of the rigorous method of diet which excludes all starches and sugars, on account of the danger of rapid emaciation, and especially that of infection with tubercle bacilli, which always threatens the diabetic patient. He recommends that the patient shall abstain from desserts, pastry, and preserves. In preference, he allows eggs; fish without sauce; meats, broiled or roasted; herbaceous vegetables; and gluten bread. Occasionally, potatoes or peas or similar farinaceous vegetables are permitted. The gluten bread may occasionally be laid aside and toast substituted (especially crust). Beer and milk are permitted, and also coffee and tea, but saccharin should be used to sweeten the latter rather than sugar. The hygiene of the diabetic comprises the care of the skin and exercise. Baths, frictions, douches, and massage are indicated. The skin should be stimulated, but not irritated. Exercise is important in order to hasten the destruction of muscle sugar, and for this purpose he recommends walking and gymnastics. Profuse sweating and fatigue are to be avoided; because, after overexertion, diabetic coma may appear. The medication he prefers consists of three remedies: Antipyrine, arsenic, and alkalies. He gives them as follows: For one week, the patient takes 30 centigrammes of antipyrine and 20 centigrammes of sodium bicarbonate in a cachet, after each meal. During the following week, the cachets are discontinued, and after each meal is substituted a tablespoonful of a solution composed of 80 grammes of distilled water containing 3 or 4 centigrammes of sodium arsenate. These two remedies are given alternately, week after week, for several months. At the same time the patient takes, with his meals, alkaline waters, which can be taken with wine (not sweet) or without. Chalybeate waters may be given in appropriate cases.—*New York Med. Journ.*, June 15, 1907.

NASAL TUBERCULOSIS.—By Dr. M. Kramer, (*Wiener Klinische Rundschau*, No. X, 1907). Kramer gives the history of two cases of nasal tuberculosis. He states that the septum is the part generally involved, but occasionally when the ulcerations are numerous the turbinate bodies may also become diseased. It is very rare indeed to find the turbinates alone diseased.

The first patient, aged 19, appeared for treatment seeking relief from nasal stenosis. He had suffered for several months from a disagreeable odor from his nose, which odor he personally was unaware of, having lost the sense of smell many years previously. For several months he has had a purulent nasal discharge, which had lately changed in character, being now in the form of large muco-purulent crusts. The history of this case

was that until he was seven years of age he was continually sick, suffering from a scrofulous diathesis, enlarged and suppurating cervical glands, and nasal catarrh. For the past 12 years he has enjoyed good health. Parents healthy. One sister has an infiltration at apex of right lung. The patient has no night sweats, cough or expectoration, and in general appearance is very muscular and healthy. He has many scars in the region of the cervical glands due to suppuration in childhood. The lungs are free from rales, and are perfectly normal. The larynx is healthy. Buccal mucous membrane normal. A disagreeable, foul odor from the nasal cavity, pus in both sides, and large crust formations. After softening of the crusts with olive oil and then douching of the nose, the crusts and secretions are completely removed from the left side, while the right side is still obstructed.

Examination of the right side with nasal speculum and probe, reveals a hard body lying on the floor of the nose, and between this body and the lateral wall of the nose, pus and crust formations are found. The body lying on the floor of the nose is freely movable, and is easily removed with nasal forceps. After removal, the nose is thoroughly cleansed again, and the nasal cavity appears wider and larger than normal. This is caused by the fact that the inferior turbinate is missing. It is now evident that the body removed was the necrotic inferior turbinate, which, imbedded in thick crusts, still retained its shape. The septum is covered with flat granulations, and on one portion near the floor, a large ulcer is discovered. The middle turbinate appears normal. Examination of the left side of the nose shows an atrophic and anemic inferior turbinate, ulcerated at its posterior portion and also ulcers on the middle turbinate and septum.

The diagnosis of nasal tuberculosis was based on the evidence of the tubercular disease of the glands in childhood and was confirmed by a microscopic examination of the pus found.

The treatment consisted in thoroughly curetting all the ulcers and then applying a 75% solution of lactic acid, followed by tamponade. This treatment was repeated three times within the next two weeks, after which the patient was instructed to douche his nose twice daily.

In three months the disease was completely cured, and there has been no return.

The second case occurred in a man, aged 43. He was treated for several months for nasal catarrh. Gave an excellent history, always being healthy with the exception of two attacks of bronchitis. He has no cough or expectoration. No history of pulmonary disease in family.

Examination.—Patient is a large muscular man having a peculiar facial pallor. No enlarged glands or scars. Normal respiration. Mucopurulent secretion in pharynx. Left nasal chamber normal. The right nasal cavity is occluded by an immense hypertrophy of inferior turbinate. Between this and the septum is a thin, foul-smelling, purulent discharge. By cocaineizing and thereby shrinking the swollen inferior turbinate a more thorough examination is made possible. As the inferior turbinate shrinks in size a very abundant purulent discharge pours out of the inferior meatus. Thoroughly cleaning away of all pus and discharge by douching, an ulcer is seen situated along the upper border of the inferior turbinate, and a

tumor-like mass is seen originating from the middle turbinate and pressed tight against the septum. Probing this mass shows it to be freely moveable, and it is removed with nasal forceps. Examination of this mass after all crusts are removed from it, shows it to consist of bone covered with mucous membrane. Very evidently it is the anterior tip of the middle turbinate, as this portion is missing and the presenting surface of the middle turbinate is severely ulcerated. The septum also has a large flat ulcer.

As the diagnosis in this case is doubtful (nothing in the history to denote either tuberculosis or syphilis), the parts are curetted with a sharp spoon, the future treatment to depend upon the microscopic findings.

The antrum on the same side was investigated and found full of pus, and was washed out. The pus from the antrum and from the nasal cavity was found full of tubercle bacilli. The ulceration was then treated with lactic acid and the antrum irrigated with permanganate of potash solution. After only a few washings, the antrum was quite normal, which proves that in this case it acted only as a reservoir for the nasal pus, and was not itself diseased. For had it also been diseased recovery would never have occurred from a few washings. After eight weeks' treatment the nasal discharge was reduced to a minimum, and at the end of three months was entirely recovered.

In both these cases the disease was a tubercular otitis of the turbinate bones.

The prognosis is good and danger arises only from complications. In the sharp curette, with applications of lactic acid and general constitutional treatment, we have the remedies for the treatment of this rare condition.

MODERN VIEWS ON APHASIA.—By Dr. Bernheim (*Doctrine de l'Aphasie Conception Nouvelle*, Paris, O. Doin, 1907). Principal conclusions:

1. There is no center for the auditory memory of phonetic speech, or for the visual memory of graphic speech.

2. There are only cortical sensory centers for the coarse perception of impressions. The auditory cortical center is located in the first temporal convolution; the visual cortical center in the region of the Calcarean fissure.

3. Visual and auditory memory pictures are evoked, not in the sensory centers of simple perception, but in the psychic sphere, frontal lobe, like all the phenomena of consciousness. Each of these memories is not localized like an imprint in a cell. The specific character of each mental representation is not due to a cellular localization, but to the specific cellular modification as determined by each impression; one and the same cerebral cell being capable of giving rise to variable sensory perceptions, according to the particular expression vibrating therein.

4. If the region of the auditory cortical center, first temporal convolution, is damaged in such a manner that the association path with the psychic sphere is interfered with, the auditory perception (hearing) of words ceases to stimulate in the psychic sphere those cells which evoke the auditory image or memory picture of the word and the associated memories serving for its interpretation; hence, verbal deafness.

5. If the region of the Calcarean fissure or of the neighboring inferior parietal lobe are damaged in such a manner that the subjacent fibres which establish the association of the visual cortical center with the psychic sphere no longer transmit impressions, the aspect of a graphic symbol (written words) ceases to stimulate in the psychic cortex those cells which evoke the memory picture of the symbol and the associated memories serving for its interpretation; hence, verbal blindness.

6. Aphasia through verbal amnesia is not due to the permanent forgetting or destruction of the acoustic images of words; these images, more or less difficult to evoke, being never obliterated. What is deficient is the association between the idea and the image, or the cellular dynamism which evokes the image.

7. There is no center of phonetic memory for the articulatory pictures of words, nor is there a center of graphic memory, for the pictures of motor graphic co-ordination. Motor phonetic co-ordination is carried out by the bulbar nuclei of the nerve giving rise to articulated speech, automatically connected by habit. Motor graphic co-ordination is carried out by the spinal nuclei of the nerves of the hand, automatically associated by practice. The acoustic or graphic word pictures, elaborated in the psychic sphere, are transmitted by the projection fibres across the internal white capsule to the spino-bulbar nuclei, which transform them into co-ordinated phonetic and graphic movements.

8. If the pathological foci of Broca's region are often accompanied by aphasia, with or without agraphia; if those of the second convolution can determine agraphia, this is because the subjacent cortical fibres constitute in the frontal lobe the region most close to the white crossroads at the anterior origin of the two capsules, the chief path of transmission between the psychic sphere, which evokes the acoustic and visual images of words, and the spino-bulbar nuclei which express them by speech and writing.

9. Motor aphasia and motor agraphia, therefore, are always subcortical aphasias through lesion of the projection paths, the lesion interfering with the transmission of verbal images. These two forms of aphasia are not invariably associated, the different forms of speech having neither the same mechanism of origin, nor the same path of transmission.—*Post-Graduate*, May, 1907.

FLIES AND DISEASE.—(*The Lancet*, April 20, 1907, p. 1101). The fly, and especially *musca domestica* (the common housefly) will be much persecuted during the present year if the indications reported by our correspondents at Liverpool and Glasgow are to be considered as prophetic of action. In the former city a report is being prepared by Professor Ronald Ross and Mr. R. Newstead as to the history of house-flies during the winter months with a view apparently of destroying them in the egg or in the larval stage, while at Glasgow (Govan) the council's bacteriologist has been making experiments by allowing flies to infect Petri dishes of agar-agar. The organisms which the flies brought were found to be those which are associated with sewage and decomposing organic material. There can be little doubt that infection of food stuffs by flies is one cause of summer diarrhoea, although, as Dr. E. W. Hope, of Liverpool, pointed out, it is not the only cause. Many other of the diptera besides the *musca domes-*

tica are noxious, such as the stomoxys, which can inflict a painful "bite." Instances are on record where this fly, or one of its congeners, has been the carrier of the infection of malignant pustule with fatal results, especially when the sufferer has been bitten on the lip, and some of our readers may remember the use made of this fact by Murger in his romance, "*Le Sabot Rouge*." One of the most active enemies of the fly is the common wasp and the wholesale destruction of these insects which is carried out in some places is likely to result in a plague of flies. Still, even in towns, where wasps are scarce, much may be done to keep down the number of flies by careful attention to the removal of organic matter in ashpits and other places, a course recommended by the health committee of Liverpool. As a matter of fact, in the ordinary household there should never be any organic matter in the ashpit, and as a rule all household organic waste can be burned in the kitchen fire.

THE RESULTS OF NEPHROPEXY.—Doering in reviewing the results obtained by a number of German surgeons from suturing movable kidneys to the posterior abdominal wall concludes that the methods commonly employed are efficient in anchoring the kidney permanently in the part selected. He finds that this operation usually relieves the attacks of renal colic so often associated with this condition, but that it has little effect on the nervous symptoms.

TRAUMATISM AS AN ETIOLOGICAL FACTOR IN APPENDICITIS.—Deaver, in an exhaustive article in the *New York Medical Journal*, June 15, 1907, discusses the relations existing between traumatism and the etiology of appendicitis from a medicolegal standpoint. This has become a matter of considerable importance in recent years, owing to the fact that attempts have been made to hold accident insurance companies liable for attacks of acute appendicitis following injuries. After a careful review of all the factors in the case Deaver concludes:

(1) From personal experience and from a study of the cases found in literature I do not consider that trauma is ever the direct exciting cause of acute appendicitis in a perfectly normal appendix.

(2) I believe that an acute attack of appendicitis can follow a severe blow upon the abdomen or fall upon the abdomen, or be due to muscular contractions of the ileopsoas muscle in an appendix which has been previously inflamed only under the following conditions:

(a) In a latent or residual abscess or extensive pathological lesion of the appendix, where the appendix did not occupy a deep pelvic position, but is in close proximity to the anterior abdominal wall, severe direct traumatism may precipitate an acute attack.

(b) Strong contractions of the ileopsoas muscle cannot in my opinion be the immediate cause of an acute attack of appendicitis, where the appendix is chronically diseased or where it has extensive pathological lesions, unless it is firmly adherent to and not simply in apposition to the peritoneum overlying this muscle.

(c) The degree of traumatism to be a factor in the causation of appendicitis must be direct and of considerable force; such force applied to the right iliac fossa may tear the underlying parietal peritoneum and so simu-

late an acute attack of appendicitis that only opening the abdomen and exposing the appendix could definitely settle the matter.

(3) The acute attack of appendicitis of traumatic origin is observed more frequently in males than in females on account of their more active life and greater liability to injury and strains, and between the ages of ten and twenty-five years.

(4) In an appendix previously diseased the liability to an acute attack of appendicitis supervening upon injury is in direct ratio to the degree of injury, and depends entirely upon the pathological changes present in the appendix at the time of injury.

(5) I maintain that it is exceedingly rare to find a case of acute appendicitis in which it can be definitely stated that traumatism is the direct exciting factor. This statement is borne out by a review of 1,400 cases seen at the German Hospital during the years 1904, 1905, and 1906, and of this number in only one patient was there any history of injury at all, and in this case it was questionable whether the injury had anything to do in causing the attack.

TENDERNESS OVER THE GALLBLADDER REGION, especially if accompanied by colicky pain, usually means a pathological condition of that organ. But an inflamed retrocaecal appendix extending high up, hydronephrosis, acute pancreatitis, and an inflammatory condition at the pyloric end of the stomach are also to be kept in mind.—*American Journal of Surgery*.

PSORIASIS—RECENT EXPERIENCES AND SOME NEW OPINIONS. (*Med. Klinik*, Nos. 39-40, 1906). P. G. Unna criticizes some of the opinions hitherto held upon psoriasis. He thinks that its position in dermatology has been entirely too isolated and that it has been considered too much as a separate disease. The numerous transitions in the appearance of the lesions, their location and accompanying clinical symptoms, as well as the clinical fact that the same remedies often cure both eczema and psoriasis, make it evident that psoriasis is merely one extreme in the general group of the eczemata. Psoriasis represents a very characteristic form of dry eczema in a skin having this disposition. This conception of psoriasis is further strengthened by the histo-pathological findings, the structure of psoriasis and dry eczema being very similar. Psoriasis, like eczema, is placed among the parasitic affections of the skin. Accordingly, the treatment should consist in the employment of antiseptic remedies.

The treatment, where possible, must be radical. It is not right to speak of psoriasis as an incurable disease. The usual treatment of psoriasis consists only in a superficial removal of the scales. Patients are generally pronounced cured where a careful examination would still detect the presence of lesions on the scalp and about the elbows and knees. In these lesions the infective agents (according to the writer's views) remain and are the points from which reinfection takes place. These lesions must be radically treated, although their removal is much more difficult than that of other lesions. Even after apparent disappearance of all the patches the treatment should be continued for some weeks further. The result of the treatment depends largely upon the patience and energy with which it is carried out.

For the first general removal of the patches the writer recommends chrysarobin and pyrogallic ointments. For the regional treatment of patches, either Dreu's ointment or the writer's collodion. The treatment is to be repeated every night, preceded by washing with soap and water. Patches upon the scalp are to be treated with pyrogallol, and, where possible, the hair is to be cut short.

The writer does not have very great confidence in the efficacy of a trip to the various springs and baths, though he says that patients cannot very well bathe too often. Small importance is also attached to the various physical methods of treatment. With regard to X-rays, the writer thinks it should only be applied to obstinate patches, and considers this method still in the experimental stage. The writer goes so far as to say that diet, in his opinion, is a matter of no importance in treating psoriasis. Improvement has resulted from the use of arsenic, though never a radical cure. In cases where a permanent hyperemia is produced by the employment of reducing agents the writer recommends the use of naphtalon or the vaselinum adustum (dry-heated vaselin), to which can later be added 1 to 5 per cent of pyraloxin. The latter has a healing effect without being irritating.—*Med. Rev. of Reviews.*

THE PERIOD OF IMMUNITY AFTER INJECTION OF DIPHTHERIA ANTITOXIN. Stiller (*Jahrbuch für Kinderheilkunde*) has studied the results of the prophylactic use of diphtheria antitoxin in the Strassburg clinic from March, 1905, to March, 1906, and comes to the conclusion that the protection lasts from three to five weeks, provided the children are removed from exposure; but if the exposure continues, the immunity may not last exceeding ten to fourteen days. Catarrhal conditions (infections) and wounds of the mucous membrane are strong predisposing factors and may materially shorten the protection. After a dose of 500 units is reached, the time of protection does not increase proportionately with increase in dose. Children receiving prophylactic doses of antitoxin should also be protected from exposure, so as to avoid too frequent repetition of the antitoxin.—*Monthly Cyclopædia of Prac. Med.*

ERYSIPELAS. VARIOUS METHODS OF TREATMENT.—Ritterhaus, in the *Therapie der Gegenwart*, No. 12, advises the use of collargolum, by means of intravenous injection, contending that the disease runs a much milder course and is shorter in duration. He, however, admits that the disease progresses no differently in its local manifestations than if treated with ichthyol, bi-chloride compresses, or by scarifications. Payr, in the *Wiener med. Presse*, No. 381, recommends the use of circular compresses as advised by Wolfler, contending that he has had very good results, particularly when the erysipelas has been limited to the extremities or the head. Payr accounts for the good results obtained, by the venous stasis which has resulted from the occlusive dressing. Knozvinsky recommends the use of quinine, either hypodermically or by internal administration, believing that beneficial results are produced by the quinine on the erysipelas streptococcus. Monroe, in the *New York Med. Journal*, treats his cases with good results by cold applications; Waugh, uses pilocarpine in the sthenic cases and iron in the asthenic cases and contends that he has had no deaths from erysipelas during the past 25 years. A combination treatment of iodine and ichthyol locally and iron and anti-streptococcus serum internally,

is used by Floeckenger with good results. The local spread of the disease according to Franke in the *J. A. M. A.*, is prevented by the use of ichthyl and collodium, contending that the disease never spreads beyond the limiting strip.

Ronna, who has treated some 5,000 cases of erysipelas, comes to the conclusion that the use of anti-septics locally, is without avail. That the use of collodion, bandages, plaster strips, etc., is absolutely of no avail, in preventing the spread of the infection, as well does he contend, the use of carbolic dressings, scarifications and the use of varnishes as worthless. He further concludes that compresses of absolute alcohol had no effect whatever on the local spreading of the disease, or on the fever, but that they do relieve the subjective symptoms; that the treatment with anti-diphtheritic serum is without avail and that the treatment by negative photo-therapy and the exclusion of chemical light is without effect.

Randolph, in the *Washington Med. Annals*, is thoroughly convinced that best results are obtained by the application of pure carbolic acid, being controlled by the use of alcohol. In the department of skin diseases of the West Philadelphia General Hospital and Dispensary a saturated solution of sodium hypo-sulphite is kept constantly applied by means of compresses with most excellent results.

RALPH BERNSTEIN.

ERRORS OF VISION AS A FACTOR IN MOTOR CAR ACCIDENTS.—Cecil Clements, cites five cases in which refractive errors seem to be responsible for motor accidents. An ideal driver, he says, must be an excellent judge of space and distance, keenly on the alert to seize every opportunity, and ready to act quickly in any emergency. All these qualities call for perfect and binocular vision, and must of necessity cause considerable nerve and eye strain even by day. He thinks the excuse for accidents that "somebody blundered," insufficient, and says we have a right to know the reason why, so that in the future precautions can be taken to prevent their occurrence.

He cites one case, a man aged 39, who at the end of a long distance race, became confused because of partial loss of vision, and examination revealed the fact that his vision was reduced to 6-12 and 6-5 with an S x3.D Lens.

A second case, one of latent divergence, due to the eye and nervous strain necessitated in driving a car, the divergence became real and diplopia developed.

The third case, a man 23 years of age, suffered from spasm of accommodation. His vision was 6-24 in each eye, with a -1. D. lens equals 6-5, but under atropin, +2.D spherical for each eye was required.

Case four, giving a history of a narrow escape from a serious accident while riding in a car. He had been troubled most of the day, during the latter part of which, he made one or two slight errors in steering, and towards dusk crashed into a hedge instead of turning a corner. On examination, he found the patient to have one and one-half diopter of hypermetropia.

Case five, a physician on hearing of the above cases, said: "I wonder if my vision will account for my bad driving of late." Examination showed

him slightly astigmatic and with a difference of $+0.75$ hyperotic between the two eyes.

In each of the above cases, correcting glasses relieved all symptoms.

In conclusion, a word of warning about motor goggles will not be out of place here. Goggles with bowed glass should never be used, under any circumstances, and for this reason—though theoretically they are similar to plain glass, practically they are really myopic glasses of varying strength. Hence they may just turn the scale in favor of spasms of accommodation. Case three had been wearing goggles of this kind. Flat glazed goggles should be worn, and if required, they can be replaced by the requisite correcting lenses, care being taken that the existing goggles are properly centred. No smoked goggles should be worn after sundown, as they are liable to create a false dusk and so increase the existing danger.—*Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

A CONTRIBUTION TO THE STUDY OF PHLYCTENULAR OPHTHALMIA.—Nias and Paton, by measuring the fluctuations produced in the opsonic indices in their cases, believe they can give support to the idea that infarctions of dead or attenuated tubercle bacilli are the causative factors.

Their results are based on an examination of 50 cases, in which 200 samples of blood were examined. They found that the blood of a patient suffering from phlyctenular ophthalmia is markedly deficient in opsonic power to the tubercle bacilli, but not to other bacteria, such as the staphylococcus, at the outset; but if the patient be adequately treated the opsonic index rapidly rises and reaches a maximum coincidently with the healing of the ulcers. Then it falls rapidly and in a few days is below the normal. At this low figure it will remain for an indefinite time and if a relapse occurs, the same sequence of phenomena will be produced. In a majority of cases, generally older and more vigorous subjects, the opsonic index as regards the tubercle will be found to have risen much above the normal. Here it will remain with temporary falls till healing occurs and then take a terminal drop. There was not a single exception to the above course of phenomena. The authors furnish several interesting charts of the opsonic index during the course of treatment. Tuberculin was not used in treatment because it would vitiate the results.—*Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

VACCINATION OF THE CORNEA.—A case is reported of accidental inoculation of the lower outer quadrant of the cornea by a fragment from a tube of vaccine lymph. On the fifth day there developed indistinctness of vision due to monocular diplopia. The small pin-head area on the cornea increased in size until it occupied one-fourth of the cornea. The chemosis and edema reached the maximum on the sixteenth day, then diminished gradually for ten days. On the twenty-sixth day the epithelium began to spread over the denuded area of the cornea. Recovery was retarded by a secondary ulceration of the afflicted area. The vision 6-6 before the inoculation, was reduced to 6-18 at the end. The main symptoms were photophobia, epipora and pain, mainly iritic. The eye was kept clean throughout by means of warm boric acid solution. Atropin was used to

control the iritis pain. Argyrol was used as a possible means of destroying the vaccinal poison and continued throughout the acute stage.—Menzies and Jameson, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

ON THE PROPHYLACTIC TREATMENT OF OPHTHALMIA NEONATORUM.—The author to ascertain the prophylactic value of silver acetate in comparison with that of silver nitrate, made instillations of both in 2,000 infants, employing a 2 per cent. silver nitrate solution in the left eye, a 1 per cent solution of the silver acetate in the right eye. All instillations were followed by normal salt irrigations.

Five (0.25 per cent.) cases contracted purulent conjunctivitis, in three both eyes, in two only the left eye was affected. There thus occurred 0.25 per cent. of infections in the eyes treated by silver nitrate, 0.15 per cent. of infections in the eyes subjected to silver acetate. Cramer's silver catarrh occurred in both eyes in 45 cases, in 20 in one eye only; of the latter the left eye was affected 12 times, the right only 8 times. Slight conjunctival irritation was noted in the left eye in 9.3 per cent. of the cases; in the right eye 8.9 per cent.; in 4.5 per cent. both eyes were involved.

While solutions of silver nitrate on standing become more concentrated, solutions of silver acetate never attain a higher concentration than 1.2 per cent. Moreover, liberated nitric acid is always more irritating than free acetic acid. Silver acetate is, therefore, not only more efficient than silver nitrate, but a safer drug to place in the hands of a nurse or midwife.—Dr. Thies, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

THE NATURE OF SHOCK.—Boise (Grand Rapids) in an article on this subject says that notwithstanding the amount that has been written concerning the nature of shock, there is even yet no agreement as to what it is. Crile thinks surgical shock is an exhaustion of the vasomotor center, while Porter says it cannot be that. Shock is a condition of the system characterized by mental and physical depression, with pallor of the skin, lividity of the mucous membranes, small rapid pulse and low arterial tension, cold perspiration and subnormal temperature, with a tendency to relaxation of the sphincters and to suppression of urine. There are three forms of shock, mental or psychical, surgical and traumatic. Mental shock is caused by some sudden powerful emotion, such as fright. Surgical shock is caused by operative work, and the cause of traumatic shock is, generally a combination of fright and severe injury. They differ as to etiology but are identical in their pathology. The author reviews some of the extensive experiments of Crile, but is not in accord with his interpretation of them. The innervation of the heart is from the cervical sympathetic, through the stellate ganglia, and from the pneumogastric nerves; the stellate ganglia being the centers from which originate the cardiac accelerator or augmentor nerves; the pneumogastrics being the inhibitory nerves of the heart. In eighteen of Crile's experiments, severe injuries, inflicted after the stellate ganglia had been excised, caused no appreciable variation in blood pressure. After an extensive discussion of experiments, he says of adrenalin that the benefit

to be derived from its administration during shock is not the raising of blood pressure, inasmuch as low blood pressure is but a symptom, a consequence; but rather in that through contraction of the coronary arteries, it causes an acute anæmia of the heart muscle and a consequent loss of energy. The heart spasm is relieved; a normal amount of blood can thus be received by the ventricles from the overdistended veins, and can be forced into the aorta. The empty arterioles become distended, blood pressure is thus raised and the general condition of the patient improved. He thinks then that we are justified in saying that the vascular phenomena of shock are caused by the tonic contraction of the heart and arteries, induced by hyperirritation of the vasomotor and cardiac centers through impulses of severe irritation received from afferent nerves. The secretion of urine depends entirely on vascular conditions, and the quantity secreted depends on the blood supply and pressure in the kidneys. In shock the arteries are contracted and the pressure is low, therefore the secretion of urine is scanty. The relaxation of the sphincters in shock is not dependent upon circulatory conditions, except indirectly. The peristaltic movements of the intestines and rectum are entirely involuntary and under the control of the sympathetic system, while the control of the external sphincter is largely voluntary and governed by the cerebrospinal system. Therefore in shock, sudden and powerful stimulation of the sympathetic system, provokes active peristalsis, and at the same time the cerebrospinal anæmia, produced by the arterial spasm allows a more or less complete loss of control over the sphincter.—*Amer. Jr. Obs.* Vol. LV, 1.

THEODORE J. GRAMM, M. D.

THE RECTUM IN ITS RELATION TO DISEASES OF WOMEN.—Pantzer (Indianapolis) says: Experienced gynecologists are conscious of the existence of an important relation between the rectum and the female genitalia, but current literature and text books are remarkably deficient in mentioning the fact. An altered function of one is reflected to the other organ. The contingent excitation of the rectum during menstruation may result in looseness of the bowels sufficient to require attention. Chronic constipation at times affects the quantity, frequency and course of a menstrual flow. The author reports a case of a woman who acquired an anal fissure while straining at stool. After this had existed for one year amenorrhœa developed with other symptoms of gastro-enteric disturbance. Examination revealed an anterior displacement of the internal genitalia due to fecal impaction. Remedies directed exclusively to the bowel function re-established the menses. A retardation of the rectal function with its sequel of membranous colitis, is the most frequent concomitant of genital disease. Constipation due to an hypersensitive left ovary is also met with. This causes spasticity of the rectum and retrouterine ligaments which is the cause of the constipation. The author then enlarges upon the value of the rectal examination, and points out the deviations which the rectum may sustain mainly through the occurrences associated with parturition. During plastic operations upon the genitalia some regard must be paid to restoring the rectum to its normal relations, and no one operation should be used in these cases.—*Amer. Jr. Obs.* Vol. LIV, 646.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

THE DIFFERENCE BETWEEN RECOVERY AND CURE.—By T. G. Roberts, M. D. That there is a vast difference between a recovery and a cure is well known, especially to all true homœopaths. That a large proportion of the cases of acute sickness will recover without treatment of any kind is a truth that should not be forgotten. Because of this fact the adherents of the cults that eschew medicine can truthfully tell of recovery from serious diseases. The masses do not realize the fact that the victim of severe illness can get well without treatment of some kind; so, when a disciple of Mrs. Mary Moss-Baker-Glover-Patterson-Eddy recovers from a disease that has been known to sometimes end fatally, the credit is given to the wonderful healing power of Christian Science.

Without denying the possibility of curing disease by occult means, it is certainly true that a very large majority of their recoveries are not cures in the sense that the word is used by the followers of Hahnemann. It is hard to prevent recovery in most cases of acute sickness, hence the most abominable treatment is followed by recovery in a large number of cases. The patients recover in spite of the treatment.

If the very ancient physician treated a case of mild bronchitis with powder of old hat or with powder of man's skull, the case recovered, and the same result followed when in later times goose grease, skunk oil, or snake oil was rubbed on the chest.

Our grandfathers regaled themselves on hot "sheep-stool tea" for measles. It was a wonderful remedy to bring out the eruption. Nearly all who took this highly prized remedy got well, and so it often happened that the most absurd and contradictory medication was highly lauded because of the self-healing power of nature.—*The Medical Advance*.

NERVOUS DYSPEPSIA.—By George F. Laidlaw, M. D. Summing up my observations on nervous dyspepsia, I note the following features:

First, of its nature.

1. Its frequent appearance after worry, trouble or some form of psychic shock.
2. Its frequent association with dilatation of the stomach or prolapsus of the stomach and abdominal viscera.
3. Its association with rheumatism. It is common to see an alternation between joint or muscle pains and the dyspeptic symptoms.

Secondly, of diagnosis.

1. The necessity of examining every organ of the body to search for a primary disease of which the dyspepsia may be merely a symptom.

2. With patients over forty-five years of age the care necessary to distinguish nervous dyspepsia from cancer.

Third, for treatment.

1. The need of generous mixed diet and the folly of forbidding carbohydrates or other forms of food with the expectation of controlling the formation of gas.

2. The need of rest, lying down in preference to open air exercise. Open air is valuable, but it is a great mistake to order a weak, thin, tired patient to walk outdoor until she has been well fed and rested.

3. The importance of correcting mechanical displacement or excessive acidity.

4. Having provided for rest, food and correction of mechanical displacement, the value of the homœopathic remedy in making a permanent cure is very great.—*The Chironian*.

KALI BICHROMICUM IN INFLUENZA.—A. C., a lady aged 26, attacked with influenza, suddenly became faint, which necessitated her lying on the floor. Was very cold, and could not get warm before a fire. Took baptism and was got to bed, after which the following symptoms developed: Pain in sacrum and lumbar region, sometimes throbbing, but principally boring, stabbing, and so severe as to cause weeping. The pain would leave those parts almost entirely, and appear in the head, just above the eyebrows and in left temple and left jaw (mostly top). Then it would appear in left side of waist, and go back to the head. Wherever the pain was it radiated from a small spot. When in lower part of back it was on left side, radiating to the right (not up and down as per one indication in Clarke's *Dictionary of Materia Medica*). All pains of the same character, getting bad about every hour, the worst paroxysms lasting twenty minutes. Sleeps a good deal. Soon after waking, sweats, and then the pains come. Cannot keep still during the pains; movement $>$. Pulse 100, full, quick. Kali bichromicum 5, selected on these indications in the Dictionary: "Periodical attacks of semi-lateral headache, on small spots that could be covered with point of finger;" "sacrum, a steady, throbbing pain;" "cutting in outer l. side of sacrum;" "pains which wander quickly;"—quickly brought relief, and reduced the pulse to 80. Pulsatilla was used with success when the pains attacked the vulva. Patient kept her bed about three days, and each day was < 4 p. m., a modality given in Boenninghausen's *Characteristics and Repertory* (Boger's), p. 96, under "Kali bichromicum."—*Homœopathic World*, June 1, 1907.

SYPHILIS.—By O. A. Palmer, M. D., in *Eclectic Medical Journal*. The following medical treatment is in no wise dangerous, but has always given me good satisfaction. It is to be understood that this treatment is to be used with the proper dieting, bathing, exercise, etc:

Ferr. phos.—Bubo, heat, tenderness, throbbing, and other febrile disturbances.

Kali. mur.—Bubo, for the swelling. Soft chancre. Chronic stage of syphilis. The principal remedy in this disease; internally, and as a local application.

Natr. sulph.—Condylomata of anus, of syphilitic origin; internally, and local application.

Natr. mur.—Syphilis in the chronic stage, when accompanied by serous exudations, and other watery symptoms.

Kali. phos.—Phadagenic chancre or malignant conditions.

Kali. sulph.—Syphilis with characteristic symptoms.

Calc. sulph.—Suppurating stage of syphilis, to control the discharge. Bubo, in the suppurating stage (alternate with silicea).

Silicea.—Bubo, in the suppurative stage (alternate with calc. sulph.). Chronic syphilis, with suppurations or indurations. Ulcerated cutaneous affections, where mercury has been given to excess; nodes in tertiary syphilis.

Calc. fluor.—Hard and indurated chancre, or other pathological indications for the use of this remedy.

If I were asked what was the best single remedy for the treatment of syphilis, I would say, echinacea. The tincture of the fresh root, given in thirty-drop doses three or four times a day, with the proper diet, baths, exercise, and obedience to all the laws of living, has given very satisfactory results in a large number of cases.

[We would remark from the standpoint of some observations of an experience in the treatment of syphilis, as well as from higher precedent, and authority, that there is no "best single remedy" for even many cases. The individual patient suffering from syphilis must be prescribed for on the basis of his own symptomatology, not on the basis of syphilis. The diagnosis does not furnish a safe guide to the prescription.]

HOMŒOPATHIC REMEDIES IN NEUROLOGY.—N. B. Delamater, M. D., Chicago. The term "Homœopathic Remedies" from frequent use has come to convey a definite and fixed idea. Notwithstanding the fact that no remedy is homœopathic, or that any remedy may be so. The homœopathicity depends entirely on its being administered in accordance with the law of similars.

There seems to be a peculiar psychological condition among physicians that impels a large majority, the instant they hear the term neurology to say: "There is no use, we cannot understand nervous diseases, and there is no cure for them anyway." I am obliged to admit that there is some ground for this feeling. It is, however, poor ground, supporting nothing but weeds. There are two marked errors, that are in the main responsible for this false impression. The main one, I believe, is the tendency on the part of writers and teachers on neurology, to put too much emphasis on the few incurable nervous maladies that are at the same time showy, in that the main symptoms are peculiar and easily demonstrated. I admit a clinic of five or six cases of locomotor ataxy is quite sure to make a hit. The general practitioner and the student alike, however, almost necessarily retains in his mind vividly that on which most emphasis is placed, and thinks very little about the very much larger number of nervous diseases that are easily diagnosticated and are as amenable to treatment as any other disease. He somehow seems to think these few incurable diseases cover the entire field of neurology. He fails to recognize the fact that he is himself constantly diagnosticating and successfully treating a full proportion of diseases belonging to neurology.

I will ask you then to disabuse your mind of these two errors, the incurability of nervous diseases and of their being exceptionally difficult to

understand or manage. Having done this we are in position to consider a very important element in the treatment of neurological cases, the application of the great natural law of cure. That this law like every other law of nature, has its limitations we must freely and honestly admit. That there are neural cases in which the law is not applicable cannot be successfully disputed. In the by far larger number of these diseases in which the law is applicable, the object to be obtained may be either palliation or relief of certain symptoms, or cure.—*The Clinique*.

HYSTERIA.—By W. T. Marrs, M. D., in *The Medical Times*. When the woman is not relieved by any of the measures thus far briefly enumerated, the writer resorts to suggestions given during the hypnotic state. This agent is a two-edged sword, and should be used wisely and conservatively. She should not be impressed with the idea that you are using any mysterious or uncanny force. As above intimated, the term "hypnotism" should not be used when addressing either patient, family, or attendants. Call your treatment by any name that may appeal to her fancy. The idea is to get her whole confidence, so that she may enter into the spirit of the treatment without mental reservation. If the subjective mind can be reached with helpful suggestions the great nerve centers may be pacified in a way that reflexes will be held in abeyance. If this can be sufficiently prolonged until the nerves and ganglionic centers have become in a measure educated, a cure will be the result. As an example more in the way of the concrete we will append a hypothetical case. Suppose it is Mrs. X, in whom there is no cause pathological or otherwise to account for the neurosis commonly known as hysteria, we proceed as follows:

"Mrs. X, please sit in this reclining chair, tilted thus. Relax every nerve and muscle in your body. Let your mind be free from care and anxiety. You have nothing to fear. Make your mind a blank. Think of absolutely nothing. Breathe deeply. Pass into a stage of somnolence. See how nearly you can approach the border-land of sleep without actually sleeping. Your eyelids are heavy and indicate that you are approaching sleep. Your mind is now passive. You will now heed the suggestions I shall give you. Whether you remember the words I say or not, you will nevertheless be influenced and bettered by what I tell you. You have no *organic* disease, but your nerves produce energy that is not equally distributed throughout your body. That is why you have so many aches and pains. By proper attention to hygiene and health laws you will be enabled to divide up this energy or nerve force as it should be. You will then be sound and well. You will not be nervous and subject to pain. You will avoid all things calculated to impair your health. For the next few days you will give special attention to correct breathing. You will inspire deeply and will at all times endeavor to get all the oxygen into your system that you can. This will purify your blood, and good, rich blood will feed and strengthen your nerves. As you practice this from day to day you will find that your nerves will constantly grow stronger and that you will soon be restored to your usual health again."

It will be noted that in this sitting, deep breathing is made the central thought, that the patient may have something tangible to which to anchor her hopes of a cure. If she carries out this suggestion—and she will if

she has confidence in the physician—her mind is kept constantly in a hopeful and expectant attitude. At the next treatment some other central suggestion may be given. At the same time general ideas of a helpful character should be forcibly impressed upon her mind. The physician should be very positive of his assurance that she will receive good and lasting benefit. It is needless to say that in order to secure these benign results the physician must first know the mental status of his patient and likewise enjoy her implicit confidence.

INTERNAL VACCINATION.—By A. H. Slarcke, M. D. Though this is a matter which has been under discussion in some medical quarters for a considerable period, it is a matter so important to us as homœopaths that it can readily bear being discussed again. And yet I wonder sometimes if all the members of our school really are familiar with this method of prophylaxis.

The first question which arises then is, What is meant by internal vaccination?

By this is understood the use of a potency, usually the sixth, thirtieth or higher potencies of variolinum, which is made from the contents of a ripe smallpox pustule. This preparation is given in a single or usually in repeated doses covering a period of several days, and can readily be administered anytime when danger is really imminent.

Whatever small-pox may have been in the past, it will generally be conceded that to-day the danger from exposure to this disease is not as great as from that of other diseases.

As Dr. Edmund Carleton, of New York, and many others have previously remarked in this connection, "In order to prevent sickness, why plan to poison well people?"

Let us follow the example of the Iowa Homœopathic Society and adopt a definition which fully includes this method of prophylaxis. The definition adopted by the Iowa society was as follows:

"Vaccination is the introduction of a virus into the system for the prevention of smallpox, and is accomplished either by the administration of a proper preparation of the virus of smallpox through the mouth or by introducing into the circulation the virus of cowpox by applying it to a freshly made scarification of the skin."

I would like to see this definition approved by our club.

To those of us who have children who will soon arrive at the school-going age this matter should appeal very forcibly. Let us express our sentiments, let our voices be heard on all proper occasions proclaiming our knowledge of the matter, and we will get the recognition in this matter that we justly should have.

Have we not always been taught to use the minimum dose? Why then use a crude drug here, when the potentized preparation has been shown to be equally if not more effectual than the crude, and certainly devoid of all its dangers?

Not only does variolinum protect the unvaccinated from smallpox, but it greatly modifies the disease when administered during any of its stages.

Again, in closing, I say, ladies and gentlemen, let us not submit to being forced to inoculate by scarification when we have a better method, one more in accord with homœopathic principles.—*The Medical Forum.*

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

PART II.

PARANOIA.—The Italians, who like the French, include all systematized insanities under the generic term of paranoia, divide them into two very distinct species. (1) Degenerative paranoia, original or late, according to the period of its appearance; (2) psycho-neurotic paranoia, primary or secondary, according as it shows itself at once or succeeds a generalized insanity. This semeiological grouping of systematized insanities corresponds, it will be seen, to the division proposed in France, it is even more complete. The Italians have gone so far as to formulate an original theory to explain how systematized insanity may be primary in some subjects and secondary in others. They pretend, in fact, that systematized insanity is always consecutive to a general insanity, of which it forms a more advanced stage. When it appears primarily in an individual it succeeds a generalized insanity in his ancestors; when it is secondary the succession is confined to the one individual.

Let those who know anything about the subject consider, first paranoia, or primary systematised insanity. Then paranoia *secondaria*, or secondary systematized insanity, in connection with mania and melancholia; and finally paranoia *degenerativa*, in its natural place in the descriptions of the mental conditions of degeneracy.

And now we come to the much vexed question of *dementia precox*. Krapelin tends at the present time to include in the paranoid form of precocious dementia, numerous pathological varieties, particularly the hallucinatory paranoias, that is to say, the progressive systematized hallucinatory deliriums, which end in dementia. Certain authorities such as Deny and Roy in France, accept this opinion of Krapelin. Others, like Seglas, Terieux, Masselon, consider this opinion too broad, and assert that true systematized delirium, whether hallucinatory or not, have nothing to do with *dementia precox*. For them, the term paranoid dementia, should be reserved for those cases where we notice an intellectual weakness of early development, accompanied by sensorial troubles and delirant conceptions, which, although poorly systematized, present nevertheless a character of fixation greater than in other forms of *dementia precox*. In one word, says Masselon, precocious paranoid dementia, is the form in which the delirium presents a greater importance and a more stable character, and, at least in appearance, is more fixed and systematised.

The delirium of paranoid precocious dementia is more frequently of a mystic, erotic, hypochondriac character, or of persecution or grandeur; and according to Paurrat may occur in false pregnancy. It quickly arrives at its formation, becomes stereotyped, but does not make any progress. It

is, says Masselon, more a fixedness than a systematisation. Regis considers this delirium secondary, terminal, but not primary from the start. It does not develop but treads on its place. The fixed ideas are multiple, absurd, extravagant, more so than those of general paralysis (Seglas); they are far from rousing emotions and intense reactions, as that disease does. The hallucinations are frequent and may involve all the senses. The speech is unconnected, pretentious, declamatory, abusive, embellished with neologisms, sometimes in archaïd style (Bianchini). The confusion of the mind is less marked than in other forms of dementia precox, exactly as it is with the negativism, the suggestiveness, the stereotypes, the grimaces and the ties. The paroxysmal crises of agitation are, however, frequent, and so are the impulsive tendencies. (Brain storms.)

In a study recently published (1904) Lugaro developed the idea that the diversity of forms of precocious dementia connected with the diversity of reaction, has the same cause on the part of a brain of different age. He admits with Kraepelin that the most precocious forms are the hebephrenic, then the catatonic forms, while the paranoid forms may appear pretty late. He also proposes to include in dementia precox, as a late paranoid form, the hypochondriac delirium of persecution of advanced age and perhaps even many of the cases of melancholia called involutive. Regis rejects the idea of Lugaro, who extends procosium dementia beyond reasonable limits, including the psychoses of old age, and so many incongruous forms. Such are the three principal forms, which prosociam dementia may assume at its acme, and as Masselon and others assert, these forms do not present absolute syndromes, they may blend and mingle together, and so we have that the paranoid form is nothing but the hebephrenic or delirant form, with a relatively fixed or systematized delirium. If one wishes to appreciate the multiplicity of systematized psychoses, let him read the works of Seglas, of Keraval, of Ronbinovitch, and above all the book of J. de Matos (of Porto) on paranoia, as well as the excellent paper of Arnaud on systematized delirium, in the mental pathology of Ballet (1903). One will see then that the genuine term of Paranoia (classic with Italians and Germans), now adopted by all psychologists of the world, embraces a multitude of psychopathic states, which have no other common character than to manifest themselves by circumscribed morbid ideas; from progressive essential systematized psychosis (acquired or late chronic primitive paranoia), up to fixed ideas and obsessions (abortive or rudimentary paranoia), going through certain systematized deliriums of the degenerate (original chronic primitive paranoia) and certain cases of hallucinatory mental confusion (acute primitive paranoia).

"These divisions, however, says Regis (1906), while explainable in a semeiologic study of systematized morbid ideas, they cease to be so, when we wish to determine nosological groups of systematized psychoses." True enough, an obsession, for instance, which is not a systematized delirium, not even a delirium, (as we may properly say it leaves reason intact) could not be placed side by side with a progressive systematized psychosis, even if called abortive or rudimentary.

E. FORNIAS.

THE PROTOZOA.—By Calkins. "In the clearest water and in muddy

pools, in acid as well as in alkaline waters, in brooks, lakes, rivers and seas, often, also, in the interior fluids of living plants and animals, abundantly in living men, and periodically borne on the dusts and vapors of our atmosphere, there exists a world unknown to the ordinary senses of men, of minute, peculiar forms of life."—Ehrenberg, 1838.

E. FORNIAS.

THE PROTOZOA.—Its history by Calkins. "The Dutch microscopist Anton von Leeuwenhoek (1632-1723), using crude lenses of his own make, was one of the first to apply the microscope to scientific investigation. His contributions to microscopic anatomy and to physiology, inaugurating as they did the invaluable services of the microscope in biological research, marked an epoch in the history of science. An ardent follower of Harvey, he was one of the first to offer experimental evidence against the current belief that many of the lower organisms arise by spontaneous generation, and on every occasion he sought to establish the truth of Harvey's dictum *ex ovo omnis*. In 1675, while searching for evidence of spontaneous generation, Leuwenhoek discovered "living creatures in rainwater, which had stood but four days in a new earthen pot, glazed blew within." "He gave the first description of a protozoön, and although the description is incomplete, it undoubtedly refers to a species of vorticella. Leuwenhoek observed several other forms at the same time, but for the most part their identity is uncertain."

"At this period, although the term cell had already been used by Hooke (1665), the idea of simplicity of organization, apart from minuteness of the organs, was unknown, and until the cell theory was established in 1838, the protozoa were regarded as complex animals having all of the parts and organs, although of microscopic size, found in Metazoa."

"Leuwenhoek allowed his imagination to see what his eyes could not. 'When we see,' said he, 'the spermatic animalcula (Spermatozoa) moving by vibrations of their tails, we naturally conclude that these tails are provided with tendons, muscles and articulations, no less than the tails of a dormouse or rat, and no one will doubt that these other animalcula which swim in stagnant waters (Protozoa), and which are no longer than the tails of the spermatic animalcula, are provided with organs similar to those of the highest animals. How marvelous must be the visceral apparatus shut up in such animalcula!'"—Quoted from Dujardin.

E. FORNIAS.

BACTERIA.—According to Vignal and Suckdorf, an adult man passes daily in his feces from 30,000,000,000 to 50,000,000,000 of bacteria. The harm these micro-organisms do is through the products which they form and which, when absorbed are toxic—e. g., indol and skatol. Although many of the bowel micro-organisms in health are apparently harmless, they can yet become extremely virulent when their surroundings are altered, as is seen in accidental kinking of the intestine, internal strangulated hernia, or in a limited muco-enteritis.—Oliver's Preface to Bouchard's Auto-intoxication.

E. FORNIAS.

THE HAHNEMANNIAN MONTHLY.

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THERAPEUTICS: THE ACME OF MEDICAL ART, THE BANE OF SECTARIANISM.

BY

AUGUSTUS KORNDORFER, M. D., PHILADELPHIA, PA.

(Read before the National Confederation of State Medical Examining and Licensing Boards, June 4, 1907.)

THE position assigned therapeutics by leading exponents of modern medicine surely is anomalous. Practitioners gifted in all that pertains to the knowledge of morbid changes occurring in disease have, with iconoclastic spirit, sought to destroy every vestige of faith in the curative powers of drugs, contending that at their best drugs have but an indirect or palliative effect in disease. True, such an estimate of the therapeutic value of drugs is the natural outgrowth of the method usually employed in studying drug action; methods often merely empirical in character, unsuitable in kind and superficial in degree.

Experiments upon the lower orders of animals are too commonly depended upon in determining the therapeutic action of drugs on man, despite the fact that such experiments must prove unsatisfactory and misleading by reason of the varied functional reactions, to the same drug, in different classes of animals. Again, hypotheses too often are accorded the place of facts, much to the detriment of both science and truth.

We cannot too strongly emphasize that surmise and con-

jecture, being governed by no law, have place in neither science nor philosophy. In therapeutics mere speculative fancies are peculiarly baneful and should be sedulously avoided.

The basis of all true therapeutics must be *law*. In fact, no therapeutic measure can become effective except in accordance with the scope and limitations of some natural law. In their spheres such laws are unvarying and universal. Their bounds are set by nature, not by man.

In order intelligently to discuss such a fruitful subject we must define the viewpoint from which we form our conception of the possibilities of a scientific therapeutics. Thus, we may consider therapeutics from the standpoint of palliation, or from that of cure; we may select agents in accordance with either their mechanical, chemical, physical or dynamic action; but, in this brief sketch, I shall limit my remarks to that phase of the subject which regards the therapeutic employment of drugs, and of the law controlling their curative action.

Drug action may be studied in various ways; thus we may consider it from the standpoint of physiology, and if physiology were a fixed and determinate science no better foundation could be desired. So long, however, as our knowledge is limited to the end-results of function and we remain in ignorance of the *HOW*, I fear physiology can offer but an unstable foundation on which to erect a lasting superstructure of curative therapeutics.

Until we more comprehensively know that great energy disseminator, the nervous system, understand the functional life of the neuron, and appreciate intelligently the character and scope of biotic energy, I fear we can know but little of the underlying and controlling dynamics of function. Lacking such knowledge, as we surely do, how can we hope to successfully employ our limited acquisition to the development of a curative therapy?

Research and experiment constantly are revealing new truths and rendering necessary new interpretations of old truths; in consequence of which any system of therapeutics resting upon such incomplete and imperfect data, often indeed but mere hypotheses, must be both uncertain and unscientific.

Revelations in physiology during the past two decades have vitiated and rendered untenable much that theretofore had seemed established; much, in fact, that bears directly and vi-

tally upon the nature and treatment of various forms of disease.

Notwithstanding the advances made in physiology and pathology, they still must be considered in their formative stage; hence it follows that physiology and with it pathology must prove unsatisfactory and unreliable as guides to curative therapeutics. Neither can afford us a law of action.

How, then, shall we gain a knowledge of our therapeutic agents? Where and how shall we seek a guiding law for their application in disease?

To ascertain the therapeutic sphere of action of drugs we first must know their power to produce morbid symptoms in healthy human beings. To reach this end it is necessary to have recourse to pure experiments; each drug must be taken into the system in a simple and perfectly pure state, and the effects critically watched and recorded; and, further, such experiments should be repeated in many provers of both sexes. The results will be expressed in both subjective and objective symptoms, evidences of the perversion of the normal functioning of the body of the prover. When all such cognizable effects of a number of drugs have been ascertained and recorded, we have acquired a real *materia medica*,—a history of the pure effects of such drugs as have been proved.

Having thus established a pure *materia medica*, the question naturally arises: How may such material be utilized in the selection of the curative therapeutic agent? To answer this requires knowledge of nature's laws of action, as applied to drugs in disease.

Realizing that every phenomenon is but a manifestation of law, the importance of adding to the study of drugs a thorough knowledge of the phenomena of disease becomes self-evident. Then, to establish a therapeutic law, we must analyze the relation between the phenomena of drug action upon the healthy and the reaction of the diseased body to such proved drugs.

A careful analysis reveals three conceivable fundamental modes of action, viz: the antipathic, where the symptoms are directly opposite in character; the heteropathic, where the effects are dissimilar and heterogeneous; and the homœopathic, where the symptoms of the provings bear a characteristic similarity to the symptoms of the individual case under treatment. Within the scope of these three relationships we must find

the curative and the palliative therapeutic laws. It follows, then, that for therapeutic purposes the symptoms and signs of disease, felt by the patient and discoverable to the senses of the educated and skilled physician, that is to say, the totality of all the symptoms and signs of the individual case, constitute the most reliable and comprehensive clinical picture of the disease. It gives the true portrait of the individual case, not a composite picture of a class. This symptom portraiture is absolutely essential to a correct conception of the therapeutic needs of the individual.

On the other hand, the laboratory picture is equally essential in its sphere, but its sphere involves questions of diagnosis, classification, prognosis, hygiene,—not medical therapeutics.

Two thousand years of medicine under the antipathic and heteropathic methods have brought the profession to the verge of medical nihilism. Why not now give unbiased thought and critical attention to a dispassionate study of the effects of drugs administered in accordance with the principle of similars? A *materia medica pura* has been developed by the adherents of this method; hundreds of remedies have been more or less thoroughly proved; their therapeutic application tested for more than a century past; and thousands of educated physicians have righteously adhered to the principle of similars in the selection of medicinal therapeutic agents. The influence of the principle of similars upon many problems in medicine has been forced upon the attention of unbiased observers, and in therapeutics it steadily has gained in favor, for here, as elsewhere, nature bears witness in no uncertain way. Thus, for instance, the immunizing action of certain diseases has been observed for centuries, and the effects of inoculation and of vaccination against smallpox are too well known to require comment. Note rather the recent evidence revealed in the effects of the various antitoxins, and remember that to be of real utility these must have origin in the very products of the disease against which they are to be employed. Note also they are not the unaltered diseased products, *the idem*, but a modification resultant upon passing through an immune, *the simile*. We may also instance the X-rays, which undoubtedly have induced malignant changes similar to those for which they are being employed therapeutically.

The development of the opsonins, which may explain the results of serum therapy, there is every reason to believe, may be

induced through the action of drugs that bear a similar symptomatic relation in their provings to the diseased conditions against which they are employed therapeutically. Thus, belladonna, ailanthus glandulosa, arum triphyllum and other similars are promptly effective in scarlet fever, each in accordance with its own symptom complex; bryonia, baptisia, rhus, etc., in typhoid; belladonna, potassium permanganate, mercurious and mercuric iodide in diphtheria; and so on through the whole catalogue of diseases. These well-known remedies, and all others, when presenting a characteristic counterpart to the diseased state for which prescribed, have in countless instances borne evidence to the truth of the law.

Another feature worthy of note rests on the fact that many observers have attested to the dual action of drugs, the opposite effects invariably being dependent upon the size of the dose employed. Varied and uncertain theoretic explanations have been advanced, but when we consider that all drugs conform to the rule, we must recognize that such difference in effects depends upon some specific law controlling drug action in the animal body.

Nature never acts by chance. Every effect must have a cause, and between the two, binding them in sequence, we find fixed and immutable law.

Therapeutics, when founded upon such controlling principles, must surely reach the acme of medical art, in that the selection of the curative agent is placed above chance, within the realm of natural law. Thus, and thus only, can we give to medicine that degree of certainty and success which surgery has gained through the principles and practice of antiseptics.

What other principles beside that of the opposition of the similars need yet be discovered and applied in order that therapeutics may become more nearly exact and scientific, none may venture to predict; but, that in the law of similars we possess the foundation of the true art of healing I most confidently proclaim. It has stood the crucial test at the bedside of the sick during a century past; its principles are in harmony with the laws governing force in other fields of physics; its practice is devoid of empiricism and chance, and its results compare favorably with those of any other system employed in the treatment of the sick.

Specialists in electrotherapy, radiotherapy, etc., have been accorded honorable position in the ranks of the profession. The

specialist in homœopathic therapeutics alone has met with persistent and unreasonable opposition, yet of all methods none conform more truly to the strict requirements of philosophy than does homœopathy.

As a specialist in homœopathic therapeutics I make this claim, not in a spirit of arrogance or bigotry, but in the name of justice, truth and science.

Therapeutics, when guided by law and resting upon a proved and pure *materia medica*, surely will have reached the highest attainable degree of certainty, and will have made possible an almost infallible application of remedial agents for the amelioration and cure of disease.

Then will we have reached the acme of medical art, and have eliminated every possibility of sectarian spirit or prejudice.

Then shall we be in truth, as in name, a liberal profession.

THE PATHOLOGY AND SYMPTOMATOLOGY OF RACHITIS.

BY

JOHN HUTCHINSON, M. D., NEW YORK CITY.

(Read before the American Institute of Homœopathy, Jamestown, Va., June 21, 1907.)

RICKETS is the English equivalent of, and a good synonym for the Greco-Latin word *Rachitis*. The original meaning, inflammation of the spinal column, shows that the vertebral bones were thought to be chiefly affected. Now it is plain that any or all bones of the skeleton may suffer the rachitic process. Inhibited deposition of lime and other earthy salts is possible to all osteoid tissue, and consequent series of changes in form and elements are inevitable.

The English, French and German are credited successively with the earliest studies of rachitis. An incomplete, though generally accepted definition is:

“Abnormal cellular activity of epiphyses and periosteum, with arrested deposition of earthy substance in the new bone tissue.”

This definition is unsatisfactory, because it hints of neither cause nor course of the disorder, but begins and ends with local effect, thereby illustrating the mistake of diagnostic limitation.

Rickets is a constitutional disease, a disease of nutrition, a

condition of innutrition. The symptomatology is voluminous. The pathology, or morbid physiology, obtains over a long period, perhaps the lifetime. Only an extremely superficial view can content itself with a seven to fourteen months of existence, made classic by the textbooks.

Inspection, with or without palpation, is often sufficient for the diagnosis, though the cases be greatly varied. They certainly lack uniformity from the symptomatic standpoint. It is anachronistic for a homœopathic physician to expect uniformity of development from any malady. None demonstrates a constant syndrome for all cases. This truth brings us back, as it ever has, and ever will, to consideration of single and collective symptoms expressed by the individual patient.

Contemplate the child squirming on his bed as you approach. His contortions are extraordinary. He can twist his trunk, his legs, his arms, with equal facility into all unnatural ways that soft bones make possible. His face is uncanny. It is too small for the bulging and distorted cranium; and the thorax, abdomen and pelvis establish at a glance your intuitive diagnosis of rachitis.

But this fact, however important in itself, does not help you greatly, nor the little patient. What he needs is the aid you can give through your finer discernment of his vital personality, evinced always by what we appreciate as symptoms. Therefore we may discover that for this or any other particular case, beginning with prenatal history, the details and totality of his illness are a law unto his own case, since comprehended in the higher law of cure.

Under the established and correct diagnosis there may be either too early or too late eruption of teeth, which may or may not speedily decay. The cranial bones may be thin, or they may be unduly thickened, with bossy swellings; and yet again appear normal, with the exception of a decided rim at the periphery of each. The fontanelles may close in due time, though, roughly speaking, rickets persist elsewhere in the organism.

When the thorax is oblique and compressed, a respiration rate of 60, 80, or even 118 is recorded. Nocturnal restlessness is characteristic, but not necessarily the rule, as may be said of nervous phases, fever, convulsions, polyuria, phosphaturia, spasmodic croup, muscle pain, and numerous other conditions.

To meet this state of the facts further diagnostic classification of rickets is provided, and medical literature gives:

1. Fetal rickets—congenital.
2. Fat rickets—plump, but not nourished.
3. Lean rickets—wasting and progressive emaciation.
4. Hæmorrhagic rickets—infantile scurvy.
5. Rachitis Tarda—rickets of adults, occurring after the third year of life. A case has been reported that occurred in the twelfth year of life, at puberty, the same case having previously had rickets up to its seventh year.

There need be no apology for non-uniformity of disease exhibition. That is a condition, not a theory. It is necessary to face the non-uniformity. Symptoms are facts, and antedate diagnosis.

The earliest signs of rachitis are of highest importance. Premonitory ones are often the gastro-intestinal. There is vomiting, diarrhœa or pasty stool. The child is listless and drowsy when not asleep. Sleep is restless, with sweating head. These and many other symptoms of the first stage are found in other conditions, and lead to study of differential diagnosis, since complaints dependent upon malnutrition present a number of early signs in common.

Pseudo-muscular hypertrophy has a similar gait, and the child's legs are fat and bulging. But the knee-jerk is absent, while in rickets it is normal. Scrofula should be mentioned, for of its morbid entity rickets has been deemed a subsidiary form. Pseudo-paraplegia, from faulty musculature and ossification; purpura, having the tender flesh, marasmus, hydrocephalus, spinal caries, scorbutus, tetany, syphilis, tuberculosis and bronchitis, are some, but by no means all the disorders which exploit symptoms identical with some of those of rickets.

Liver, kidneys, spleen and lymphatics are enlarged, or otherwise disordered. The brain enlarges from neuroglia increase, Proliferation of connective tissue in other regions of the body would be expected. An unstable nervous system eventuates in some instances. Blood analysis may disclose anæmia or leucocytosis. Of pathological resultants, or end products, the number cannot be estimated.

There is proneness to believe that a morbid condition has ended when the more obvious symptoms disappear. Yet it is daily seen that a morbid trend will persist indefinitely unless properly checked. The only criterion is comparison of the

curable malady with a curative remedy, for determination and correction of causative factors, otherwise these will operate indefinitely uncontrolled. From *Materia Medica* provings are to be learned the exhaustive symptomatology of rachitis. Pathology is recorded there, and what is more to the purpose, the patient's peculiar state and needs, and their complement in the similar remedy.

The course of rachitis is chronic. Its activity continues more than two and three years. Its consequences in both structural and functional deformity remain too often through life. In the female, contracted pelvic bones are a misfortune for the life of more patients than one.

We may well seek to discover the maximum as well as the minimum development of a profound dyscrasia like rachitis. New symptoms are steadily reported, and strange phenomena constantly observed in hospital clinic. These we accept as suggesting aids for all, and particularly the earlier stages. Infantile, adolescent and adult cases are always with us.

I will here report briefly seven cases, each of which had one or more striking rachitic conditions, or, rather, symptoms characteristic of rachitic disturbances, but in each case rachitis could not be said to cover the diagnosis nor the morbid state:

1. Boy of five years. Under sized; pigeon-breast marked; tachycardia; adenoids; phimosis; precocious. Father died of tuberculosis.

2. Girl of eight. Head sweats profusely in sleep; active nervous temperament; epiphyses somewhat prominent; joints tender to manipulation; catarrhal symptoms; suppurative otitis.

3 and 4. Brothers, four and six years, of the famous Scotch-oat-meal-fed variety; persistent rachitic symptoms disappeared after circumcision.

5. Boy seven months. Gastro-intestinal phases, convulsions, late dentition, fat, legs weak; circumcised; carefully fed; homœopathic treatment, and at eighteen months normal.

6. Girl of two years. Intestinal inflammation repeatedly; adenoids; nocturnal restlessness; early teething; pulsatilla symptoms marked.

7. Boy of ten. Has taken ether six times for operations on his feet, adenoids, circumcision, etc.; nervous system so affected by his surgical experiences that he nearly gets convulsions if his throat is examined; anterior fontanelle closed be-

tween third and fourth year; cranial bones are irregular and much thickened in spots; in eighth year had a spontaneous fracture, lower third tibia and fibula.

For the purpose of practical study, having for its end and aim the proper treatment of a given malady, our attitude toward that malady must be one of unprejudiced and open-minded inquiry. Let us not then accept rachitis as a disease entity, since its manifestations do not impress themselves with uniform or equal force and quality upon all subjects. Let us turn our attention to these manifestations with a view to the consideration of their endless variety, and not seek to curtail this in any way by preconceived or traditional insistence upon a concrete unity.

A CLINICAL LECTURE ON SYPHILIS, WITH ESPECIAL MENTION OF ITS TREATMENT BY INTRAMUSCULAR INJECTIONS.

BY

LEON T. ASHCRAFT, A. M., M. D.

(Delivered before the Post-Graduate Class of the Hahnemann Medical College,
May 22nd, 1907.)

GENTLEMEN:—By request I will present for your consideration a number of cases thus practically illustrating my remarks on the subject of syphilis.

CASE I.—R. C., age 24, had a chancre two years ago. It was situated at the urethral meatus. Now it presents only a slight cicatrix. Within fifty days an eruption appeared, such as is usually the case. As you know, the early syphilitic exanthemata appear within sixty days after the advent of the chancre, and the latter usually shows about three weeks after suspicious intercourse or exposure to contagion. The patient passed through the various phenomena of skin rash, alopecia, ulcerations of the mucous membranes, disorders of the nails, and came to us several days ago presenting ulcerations on both tibiae. It is interesting to note that he has been taking mercury by means of inunctions, such having been given in another clinic. The lesions have involved the deeper structures, even penetrating the bone. Such a condition portrays either a malignant syphilis or a mismanaged attack.

Judging from his appearance, it is probably due to lack of proper treatment. Concerning treatment, I will speak later. Now I merely desire to present the clinical features.

CASE 2.—This man is a Greek, aged 27 years, unmarried. He has a history of a hard sore appearing near the frenum three years ago. He presents now irregular bilateral scrotal tumors. A differential diagnosis must be made considering hydrocele, tuberculosis, gonorrhœal epididymitis, carcinoma or other tumors, and sarcocele. The testes are quite enlarged. There is no involvement of the cord on either side, but an irregular, uneven swelling of the epididymi. The veins are not dilated, consequently we may exclude tuberculosis and gonorrhœal epididymitis. The light test for hydrocele also fails, although fluid collections are here very commonly found. Presumably we diagnose double syphilitic involvement of the testicle. This is a condition which comes on probably from one to ten years after the chancre. We recognize two varieties, an early epididymitis and a late orcho-epididymitis. This patient presents painless tumors of both testes and epididymi. I am making a very considerable amount of pressure here; he winces but slightly. This insensitiveness is a diagnostic point of great value. The outlook here is favorable if prompt and efficient treatment be given, usually the gummata rapidly meet. The tumor disappears and the patient regains his sexual virility.

CASE 3.—The next case presents an infection, I imagine, about four months old. I base my inference upon the fact that he now has a faint rash; ordinarily the rash does not come out for forty-two days after the advent of the chancre, and seventy-one days after infection. This would make two months and one-half, and because it has almost disappeared, I would add another month; therefore my presumption is evidently correct. This man had originally a sore on the shaft of the penis. You will find general glandular enlargement, but the very interesting feature that he now presents is that which furnishes the element of contagion, namely, buccal mucous patches. As you know, in order to acquire syphilis two conditions must be present. First, the germ, usually found on the mucous membranes, and, second, a broken surface, where these organisms may be deposited. This man must be very careful of his teeth and of the toilet of his mouth; he must avoid chewing and smoking tobacco. The mucous patches must be touched daily with nitrate of silver, about sixty grains to the

ounce. Having then presented a few cases, let us now discuss the treatment of syphilis. In the first place, when is the time to commence?

Not until you are positively sure that the patient has the disease. In other words, no single lesion, no matter where situated, having an indurated base, having a distinct period of incubation, is sufficient grounds upon which to make a clinical diagnosis. If you wish to make a clinical diagnosis of syphilis it is absolutely necessary that you see the presence of "the rash"; consequently you must wait until forty-two days after the advent of the chancre, seventy-one days after exposure to the virus, before you can be absolutely certain that you have syphilis to deal with, and then is the proper time to commence its treatment. On the other hand, however, the diagnosis may positively be made microscopically before this time. Within the last year, we have had laboratory methods at our command by which we are able to find the organisms which produce syphilis. These are called *spirochæta pallida*. These cork-screw bacilli are found in nearly all the primary and secondary forms of the disease and especially in the secretions from mucous patches. By taking a cover glass and rubbing it over this man's lip and subjecting it to the proper methods of staining we would unquestionably find these organisms present, or by withdrawing fluid from the glands in the groin, or the epitrochlear region by a hypodermic syringe, or by excising skin lesions and subjecting them to a proper staining process we would be able to determine accurately whether we have a syphilitic to deal with.

Various staining methods have been devised and suggested for the staining of the organism, but the original method with azure blue and Giemsa's eosine still holds the first position in the opinion of many observers. The time consumed in the staining process, sixteen to twenty-four hours, is said to be unnecessary, thirty to sixty minutes answering the purpose. The methyl alcohol blood stains, notably Wright's, are also efficient and rapid. But probably the best stain is Goldhorn's. The clinician does not care for the detail of the preparation of such dyes, nor does he wish to be bothered with considerable technique. The Goldhorn's stain can be purchased ready made, requires practically no technic in its use, takes but ten or twenty seconds to act, and is said to give superior results. But with the best of stains, patience and perseverance are the main

requisites in finding this elusive organism. How is the disease to be treated?

Syphilis is a chronic disease and consequently needs chronic treatment, so to speak. Like tuberculosis or gout, or like any other chronic disease, it needs a long line of careful treatment. Possibly the most important of all is the hygienic treatment. That is to say, he who happens to be afflicted must lead a life which is as nearly physiological as possible. Avoidance of alcohol is imperative since alcohol hardens the arteries, and you know syphilis does too. Therefore it is well to enjoin our patients to live carefully. Unfortunately, this advice is not usually accepted by our patients. What drugs are we to give? For how long? Can syphilis be aborted?

Until six months ago I would have said that the abortive treatment is impossible, but it is now a well-known fact that Metchinkoff and his co-laborers succeeded in preventing it.

Their deductions were made from experiments with a young Frenchman, who offered himself as a sacrifice on the altar of science. Metchinkoff inoculated him with the organism of syphilis, taken directly from an individual in the active stage of the disease.

Eight hours afterwards this patient submitted to an excision of a large part of the injected area. It is interesting to note that syphilis failed to appear.

Again, a man, having an abrasion on his penis, had intercourse with a woman undoubtedly syphilitic. This man subjected himself to experimental treatment by Metchinkoff, who had a mercurial salve rubbed immediately on the wound; he likewise failed to develop any symptoms of syphilis. Similar experiments were made upon men and a few apes, syphilis appearing in those who failed to submit to excision of infected areas or to mercurial inunctions within the first twenty-four hours after exposure. Consequently, it has been proven that syphilis may under certain circumstances be aborted.

Now, what drugs are used in the treatment of this disease? The drug that stands prominently forward is mercury. But how shall it be given? There are a number of ways, and I propose to give you briefly their advantages and disadvantages.

In the first place, mercury is given by mouth. This method is by many considered best suited to the average case, because in their opinion the average case is not a serious one,

and, indeed, the management of the average case of syphilis may be perfectly accomplished by this method.

Before commencing treatment the mouth should be placed in perfect order, otherwise mercurial symptoms will appear too soon. We use a granule of protiodide containing one centigram each.

We give one of these granules after each meal for three days. On the fourth day we increase the dose by one granule, and we continue to increase by one granule every fourth day until we obtain the physiological effects of mercury, as evident by colicky pains, diarrhoea, bloody stools, or tenderness of the gums together with an increased flow of saliva. Then we know that we have found that patient's dose; the average patient takes nine or ten granules in twenty-four hours before observing these toxic symptoms. This is known as the full dose, which, if continued, is detrimental, but when cut in half proves to be a tonic and the individual's dose; it is a tonic because the blood taken from syphilitics thus treated shows an increase of red blood corpuscles, and is homœopathic, because as you know perfectly well, workers in mercury suffer from many of the symptoms simulating syphilis. Thus they have intestinal tenesmus, bloody stools, distinct changes in the bones, disorders of the gums and the various dermatoses.

As a rule we keep the average patient under treatment for three years administering this dose month in and month out; should grave symptoms occur we have then resource to the difference between the tonic dose and the full dose, which should be given until all symptoms disappear; if this be insufficient to control all symptoms then some other method of treatment must be given. After a while the patient returns to the tonic dose by mouth. This mouth treatment, however, has many disadvantages. What are they? In the first place, these granules irritate the intestine, even though they have been carefully prepared. Sometimes they have been known to pass through without their covering being absorbed. Again patients have to carry around tell-tale medicines distinctly objectionable to them. Again we find that even the most conscientious fail to take them with any degree of regularity, so that we have to employ other methods for satisfaction. During twelve years' experience in the treatment of syphilis I have rarely been called upon to use the mercurial vapor bath, and I have been disappointed with its results. My opinion is

supported by those of eminent authority. Consequently, it is simply a remedy of historical interest. The inunction method, however, is very valuable for certain cases; in other words, for cases which present obstinate lesions of the skin, or for those who do not do well under treatment by the mouth, or for those who need very quickly the deep and far-reaching effects of the drug. But it, too, has its disadvantages. In the first place, it is a dirty method at best, since it soils the undergarments, produces dermatitis and often causes salivation without producing the desired results.

The technique of its administration is as follows:

The patient, stripped to his waist, sits astride a chair. A professional rubber takes one drachm of the preparation to be used, preferably blue ointment (because here, as I understand it, the particles of mercury are more finely divided) smears it on the back and by means of vigorous circular motions rubs in the salve for about half an hour. The patient then puts on his undershirt and dresses. Twenty-four hours later he takes a bath and returns and has the same thing repeated. Such has to be continued until the gums are touched or until the indications for which it was given have been satisfied. In some very severe cases inunctions are given morning and evening.

Lately intramuscular injections have come into popular favor, not only in this country, but particularly abroad, in Paris and in Germany, and in all large cities where syphilis is predominant. This method, I believe, owes its popularity to Levin, who some thirty years ago first started it. Then it was known as the hypodermic treatment, which consisted of the injection of a certain amount of mercury under the skin.

But within the last two years many prominent clinicians have modified the method, so that they now give the intramuscular rather than the hypodermic injection, the effects of which we will discuss later. This method is justly popular, because, in the first place, one can accurately judge the amount injected. It, too, does away with many of the objections associated with the mouth treatment, since it fails to cause diarrhoea, gastro-intestinal disturbances, or undue salivation. It likewise does away with all of the unpleasant effects associated with the inunction method, and it places treatment upon an accurate and scientific basis, because we know just how much drug the individual receives; moreover, it keeps the patient almost under daily surveillance. Advocates of the intra-

muscular injection are divided into two schools—those who inject the soluble salts of mercury, and those who use the insoluble preparations. I must say, after a very conscientious trial with both methods, that I am inclined to accept the soluble salt because in the first place the drug is immediately appropriated by the economy, and we, too, know exactly how long it takes to absorb this drug, since tests made of the urine one hour after such injections have shown traces in the urine.

When an insoluble preparation is used (injections being made every two to three weeks) one does not get the effect of the drug at once at the time when it is needed. Some physicians reserve intramuscular injections for desperate cases of syphilis. It is very true that it is of distinct value here, but it is of equal value in all cases. During the past year I have treated almost every case by this method, and I am free to say that I am delighted with it, and my confreres are equally pleased.

Dr. Raue, who has much to do with the treatment of syphilis in infants and children, has been using this method, and has expressed himself as very much pleased with the results. There are many preparations of the soluble salts of mercury. The preparation which I use is known as the soziodalate of mercury. This solution contains one-half per cent. of mercury, in the form of soziodolate and sodium iodide. Each twenty minims of this solution represents one-tenth of a grain of mercury. In order to make the injection a site is selected, which corresponds to Gross's triangle, which may be described as follows: The upper limit is the middle of a line drawn from the posterior superior spine and the great trochanter; the distance from the median line is defined by taking the outer third of the region of the buttock or the middle of a line drawn from the ischial tuberosity and the greater trochanter. Around this point a circle about two fingers' breadth in diameter is drawn and the punctures are made exclusively within this circle. This avoids the sciatic nerve, and the blood vessels. Consequently, it does away with the possibilities of pain, embolism and abscess.

This site is rendered aseptic by washing with soap and water, cleansing with alcohol and applying ether. The ether acts as a local anæsthetic. The patient bends over a chair or table, assuming the position necessary for prostatic massage. The syringe used was made at my suggestion by Valzahn. The

needle selected will vary in length from three-quarters of an inch to one and one-half inches. The length selected to be adjudged by the thickness of the gluteal region.

If the needle is too short it will not penetrate directly into the belly of the muscle, but will go into the subcutaneous tissue. It is, as you will notice, sterilized. The proper amount of mercury to be used is gauged by reading the graduations on the barrel of the syringe. The average barrel will hold about 100 minims or one-half grain of the solution.

We will now make the injection.

You will observe the manner in which the needle is introduced and the comparative lack of distress which the patient suffers. It is plunged rapidly up to its hilt into the buttocks. The patient said that he "did not feel it." The barrel is now detached from the needle and the lumen of the needle is inspected for blood. If blood oozes after ten or fifteen seconds' inspection, then we must not inject because of the probability of entering a vein and of causing an embolus with all the symptoms you are familiar with. The needle must be withdrawn and another location selected.

We will now make the injection on the first patient very slowly into the region of the buttock. We accurately gauge the dose. You will notice that the needle is withdrawn very quickly. Now the next step consists of massaging the parts vigorously with a piece of dry aseptic gauze; an adhesive dressing is then applied. The patient has received about twenty minims. This treatment is given to the opposite buttock three days from now, and if it is necessary to increase the dose in any degree such may be done with a certain knowledge of its absorption. I have seen most marvelous results from this method of treatment. For instance, I have seen gummatous involvements of the soft and hard palate cleared up within a dozen injections, and the severe and awful pains associated with laryngeal syphilis clear up most remarkably after the second or third injection. I have seen obstinate lesions elsewhere disappear; in fact, its results are really marvelous. The treatment must be persisted in every third day until the symptoms disappear; ordinarily, as a routine treatment, injections should be given for three months. Then a rest is enjoyed for one month. The treatment is again resumed for three months, then another month of rest, and so on for three

years. The dosage, as before stated, may be increased or decreased as required.

Now we will inject the other cases. The treatment of syphilis by means of mercury administered directly into the vein is not any more advantageous than this method and it subjects the patient to more risk. The idea in giving the intravenous injection is to get the effect of the mercury quickly. Experiments made by the clinicians in Paris show that mercury is not absorbed any more quickly in this way than by the intramuscular method; this then rules out the intravenous method. It is sometimes necessary to give iodide of potassium, iodide of strontium, iodide of salt or some other iodine preparations, either alone or with mercury. Iodine and its combinations are of undoubted value, especially in nervous lesions, or in broken down lesions anywhere, and truly the results achieved are often miraculous, but since I have been using intramuscular injections I do not so often use the iodide of potassium. It will be recalled that this preparation of mercury contains sodium iodide. It must be remembered that no treatment is ideal for any disease, but weighing them separately I prefer intramuscular injections

THE TREATMENT OF HEREDITARY SYPHILIS.

BY

C. SIGMUND RAUE, M. D.,

(Read before the American Institute of Homœopathy, Bureau of Pediatrics, June 21st, 1907.)

Clinical Professor of Pædiatrics, Hahnemann Medical College, Philadelphia, Pa.

IN the treatment of hereditary syphilis there are two salient points which must always be kept in mind: First, that syphilis is a chronic affection and requires long-continued treatment, and, second, that hereditary syphilis is, in the majority of cases, a most virulent disease with a high mortality rate. We are not in the habit of looking upon syphilis as a fatal disease, but those of us who see a good deal of this affection in the hereditary form soon realize its gravity, and learn to appreciate the sociological importance which it has assumed. When we pause to consider that fully one-half of all infants born of syphilitic parents die within the first month of life, and that

of those who survive this period a large number die in early infancy, we are brought face to face with an appalling condition. We have here a preventable disease, in the majority of instances acquired through illicit intercourse, which is responsible for ten per cent. of the deaths in the first year of childhood.

These observations lead us to the conclusion that there must be something radically wrong to account for such a large number of cases. In other words, syphilis in the parent is either too often improperly treated, or these patients are too frequently allowed to marry before their disease has been controlled. Furthermore, we must realize that unless active and in some instances actually heroic treatment is employed, little can be expected so far as results are concerned.

In the question of remedies, there is practically no difference between the treatment of syphilis in the infant and in the adult. For the active manifestations of the disease mercury will always be the leading remedy. Not only is it homœopathic to the disease, but its clinical value is beyond dispute. When special symptoms are encountered which do not correspond to the pathogenesis of mercury, the appropriate remedy must, of course, be selected as in any other chronic affection.

Before entering into a discussion of the special indications for the various remedies useful in syphilis, a few words as to the general management of these cases will be in order. In the first place, we must not lose sight of the fact that hereditary syphilis is fully as contagious as the acquired form, and that the child's attendants must be apprised of this fact in order that they may take every precaution against becoming infected. I am personally acquainted with the case of a nurse who acquired syphilis in this manner from an infant she was attending. The mother, according to Colles' law, is immune, at least in the majority of instances; nevertheless, if she is nursing the babe, her nipples should be carefully looked after, and if they become abraded or fissured a nipple shield should be employed as a matter of precaution.

The infant's nutrition is of the greatest importance in these cases, and the outcome depends largely upon the feeding of the child and the state of its digestion. If breast milk cannot be obtained, cow's milk, properly modified according to the infant's age and the state of its digestion, should be substituted.

Proprietary foods should be avoided, and under no circumstances should a wet-nurse be exposed to the danger of infection with the disease.

REMEDIES.

AURUM METALLICUM.—Tertiary manifestations; exostoses on the skull, tibia and bones of the fore-arm; dactylitis with ulceration; caries of the nasal bones; defective development of the sexual organs; infantilism.

BARYTA CARB.—Persistent glandular enlargements; squamous syphilides.

HEPAR SULPH. CALC.—Hepar has always been looked upon as a most efficient antidote to the ill effects of mercury, but aside from this it is a valuable remedy for many of the constitutional manifestations of syphilis. Its well-known influence over suppurative processes makes it useful in pustular skin conditions and in the early stage of bone necrosis.

KALI BICHROMICUM.—This remedy is particularly useful for the catarrhal conditions encountered in syphilis. There is stoppage of the nose and ulceration of the mucous membranes, the ulcer having a punched-out appearance; ulceration of the nasal septum with perforation; Kali bichromicum, like Kali hydriodicum, follows well after mercury.

KALI HYDRIODICUM.—In the later manifestations of hereditary syphilis the iodide of potash must frequently be employed in material doses. It is not always necessary to employ this remedy in massive doses; there are authentic cases on record in which kali hydriodicum in one of the dilutions has given excellent results. When the symptoms are urgent, especially in lesions of the nervous system, we must give a sufficiently large dose to control the condition rapidly. Whether this shall be five, ten or even twenty grains three times daily rests entirely with the judgment of the physician. Cases that have been treated properly from the beginning rarely require large doses of potassium iodide. Speaking of this remedy in hereditary syphilis, Cobb says: "It can frequently be well followed or replaced by the iodide of calcarea or the iodide of arsenicum in lesions of the glands; by silicea or zincum metallicum or sulphur in those of the nervous system; and by hepar-sulphur or aurum metallicum or nitric acid in those of the osseous system."

MERCURIUS.—Hughes, in his Pharmacodynamics, clearly points out the action of mercury in syphilis, namely, its influence over local lesions, as well as its beneficial effect upon the patient's general condition. This remedy, being truly homœopathic to syphilis, not only controls local manifestations, but also exerts a tonic and hematinic action in the disease. Pathogenetically, it corresponds to the diffuse inflammations and infiltrations of the skin, mucous membranes and other structures, the tendency to breakdown and ulceration being marked. Ordinarily, we may give the remedy by the mouth, but when the symptoms are urgent, as they frequently are in the hereditary form of the disease, we must get a quick action of the drug if we wish to save the case. For this purpose *inunctions of mercurial ointment* (ten grains daily) may be employed. Recently I have been impressed with the superiority in desperate cases of the *hypodermic injection* of mercury as extensively used by my colleague, Dr. L. T. Ashcraft, in the genito-urinary clinic at the Hahnemann Hospital, Philadelphia. Ten minims of the *soziodolate of mercury* are injected into the gluteal muscle, the dose being repeated every three or four days until results are obtained.

Mercurius iodatus flavus 2x trituration, two grains three or four times daily, is the preparation I usually begin with in ordinary cases. Later, if ulcerative lesions predominate, I prefer the *red iodide*. The *bichloride*, in the third decimal trituration, I have found particularly useful in cases associated with intestinal disturbances, and when the mucous membrane of the mouth is in an unhealthy condition. The mouth and lips of these infants sometimes look bright red, as if the mucous membrane were entirely denuded of its epithelium.

MEZEREUM.—Pustular eruptions forming thick, brownish crusts, with oozing of pus; painful at night; swelling of the shafts of the long bones; syphilitic neuralgia.

NITRIC ACID.—Deep irregular ulcers on the borders of the tongue; on the tonsils and the soft palate; sticking pains in the ulcers; rhagades at the angles of the mouth; pustular and squamous syphilides; mercurial stomatitis and cachexia; urine of a strong ammoniacal odor; condyloimata about the anus and genitals.

SULPHUR.—Syphilitic children often require an occasional dose of sulphur for special symptoms or as an intercurrent remedy. The symptomatology of sulphur is too extensive to

be discussed here. Its sphere of action embraces both local and general manifestations.

THUJA.—This remedy is credited with being useful for condylomatous lesions.

ORCHITIS.

BY

DR. EDUARDO FORNIAS, M. D., PHILADELPHIA, PA.

INFLAMMATION of the testis may occur idiopathically, but it is usually *due to gonorrhœa, syphilis or tuberculosis*. It is sometimes *traumatic* and occasionally *symptomatic* (mumps, variola). It is liable to be induced by employing injections and at the same time neglecting to use a suspensory bandage. The *epididymis* is almost always involved (*epididymo-orchitis*). The *symptoms* are *local and general*. Swelling, tension, tenderness, aching pains and a feeling of weight are the characteristic symptoms. *Chronic induration* is an usual result, though in syphilitic and tuberculous cases, *suppuration and ulceration* often take place. The local syndrome is generally attended by fever, vomiting, constipation and a very *excited nervous state* (restlessness, insomnia, anxiety, headache and backache). The patient does not assume the erect posture, but walks best with his legs apart. *Chronic Orchitis* may follow an acute attack or may arise spontaneously. The exciting causes are chronic cystitis, hypertrophy of the prostate gland, stricture and gonorrhœa.

Gonorrhœal orchitis may be double, pass from one testicle to the other, and is subject to relapses. In this variety of orchitis, which is due to *checked gonorrhœa* principally by injections, the part first and chiefly affected is the epididymis. The *orchitis of mumps and variola* presents always a sound epididymis, or at least its lesions are insignificant, when compared with those of the gland. In *testicular syphilis*, the epididymis is found frequently intact; or, else, tumefied and indurated, but *tuberculosis*, like *gonorrhœa*, attacks principally the epididymis (*Bougle and Cavasse*). Reclus, by his anatomopathological researches, has demonstrated that, in *tuberculosis*, the testicle is very often attacked at the same time with the epididymis; however, clinically, the epididymic lesions are almost

always much more appreciable. In *cancer* the trouble always starts at the testicle, and as the neoplasm develops, the epididymis flattens, spreads out and obliterates, leading one to believe it is ingrafted in the mass. Metastatic orchitis is rare in children.

TREATMENT.—The *leading precepts* are: Absolute rest in the recumbent position, the use of a suspensory bandage, the discontinuance of the injections, if these are in use, a proper diet, and antisepsia, if the case demands it. The bowels should be watched. As the swelling arises mainly from an effusion of lymph and serum into the tunica vaginalis, by puncturing this, with a tenotome, we often obtain immediate relief by the evacuation of the fluid. Poultices and pulverizations (spray) mornings and evenings with *methyl chlorid*, have proved sometimes beneficial. *Antiphlogistine* is very highly recommended and I have used it with satisfactory results. Do not strap the testicle with adhesive strips until the acute stage has subsided. This application is often productive of much discomfort; I prefer painting the parts carefully with a 40 per cent. solution of Nitrate of Silver, which has a contracting effect upon the swelling and seems to allay the pain. If the exciting cause of *chronic orchitis* is still in operation it must be removed; the patient should be confined to his back and the indicated remedy given.

Internally, PULSATILLA and MERCURIUS SOL. are given. The leading remedies for *gonorrhæal orchitis*, or when the testicular inflammation is *metastatic of mumps*. In this variety of orchitis other remedies have been recommended, but, of them, perhaps, HAMAMELIS and CLEMATIS have only had universal endorsement. When *orchitis* is due to *traumatism*, however, ARNICA stands first in the list of suitable remedies, though in many cases HAMAMELIS and CONIUM have proved very useful. Older homœopathists have spoken well also of PULSATILLA and ZINC. In *subacute conditions*, JODIUM and MERCURIUS SOL. have answered well, and good results have been obtained from JODIUM, RHODODENDRUM and CLEMATIS, followed by SULPHUR, in *chronic cases*. Induration, as a *sequela*, has been combatted with AURUM., ARNICA, CLEMATIS, CONIUM, STAPHISAGRIA, SPONGIA, KALI. JOD., CARBO. ANI. and THUJA. In *obstinate cases of orchitis*, AGNUS. CAST., BROMIUM, NITRIC ACID, PHYTOLACCA and RHODODENDRUM should be studied. If *orchitis* is followed by *atrophy*: BARYTA JOD., ZINC, RHO-

DODENDRUM, PLUMBUM. Other remedies that act markedly on the testis, and may be required in some cases, are: ACONITE, APIS., ARSENICUM, BELLADONNA, CHINA., LYCOPOD., NUX VOM., RHUS, TOX., STAPHISAGRIA, VERATRUM VIR. and ZINCUM.

SPECIAL INDICATIONS.

Orchitis, with epididymitis, as a result of suppressed gonorrhœa, cold, or contusion, calls for PULSATILLA, unless another remedy is otherwise indicated. The testicle is swollen, retracted, very sensitive to touch, and of a dark-red hue. The pain is sharp, and dragging along the spermatic cord. Restoring the discharge, relieves the distressing pain and is said to prevent relapses; also for maltreated cases which shift from one testicle to the other.

Next to PULSATILLA we may place HAMAMELIS and often MERCURIUS SOL. The former, both locally and internally, relieves the intense soreness; urethral irritation, nausea and faintness. It is also indicated when severe *neuralgic pains* in the testicle suddenly *shift to the rectum*. MERCURIUS, on the other hand, is suitable to those cases where a little yellow-green discharge still remains, and where the *epididymis is severely involved*. It is a capital remedy, when phimosis complicates the orchitis.

CLEMATIS is a remedy of value for *gonorrhœal orchitis*, when the testicle becomes indurated, or drawn up and painfully sensitive, especially so in the right spermatic cord, which feels as if pulled.

RHODODENDRUM is a useful remedy when the *testicle, particularly the left*, is swollen, drawn up and feels as if contused. The epididymis is intensely painful to touch, and the soreness of the parts extends into the lower abdomen and the thigh. Like CLEMATIS is indicated, when the orchitis becomes chronic and the testicle indurated.

AURUM is especially suited to *chronic orchitis*, with induration; or when the *right testicle is affected*, the perineum is very painful and there are pressive pains when touching or rubbing. THUJA is a remedy not to be neglected in those cases developed after *checked gonorrhœa, from injections* or cold, provided the *hydrogenoid constitution* and the constitutional effects of the disease are present. There is under this drug

acute aching, as if contused, especially when walking, and the *left testicle* is usually the affected one. I used THUJA with success in a case of *traumatic fungus* where the testicle was covered with vegetations.

SPONGIA acts powerfully in the testis and is particularly indicated in *maltreated cases of checked gonorrhœa*, with induration and pain in the cord and testicle of a squeezing character, which becomes aggravated by motion and even rubbing of clothing.

I have found NUX VOM. an excellent remedy *for debauchees and tipplers*, who have *abused injections, copoiva, cubebs, etc.*, and are tormented with constipation, hardness and retraction of the gland, stinging pain and spasmodic contractions into the cord. It is particularly indicated in *relapses after dissipation*.

ARNICA has a well-merited reputation for *orchitis from contusion*, or similar injuries, especially when the testicle becomes swollen, purple-red, feels as if bruised, and the cord is prominent and painful. It has also been recommended for the attending *induration*.

CONIUM is another remedy for *orchitis after contusion*, as well as *for induration*. I consider it inferior to ARNICA and HAMAMELIS in traumatic inflammation, but superior to any, even CLEMATIS, *for induration*. It is especially suited to short spells of cutting pain, through the middle of the scrotum, extending between the testicles to beyond the root of the penis; or when the *aching pain increases after erection and the left testicle is involved*.

TUBERCULAR ORCHITIS.

This variety of orchitis is *acute and chronic*. When *acute* the trouble is preceded by painless, repeated tenacious urethral discharges (*tubercular gonorrhœa*); unduly, frequent passage of urine (*pollakiuria*), irritability of the prostatic urethra, to catheter, and seminal losses. The *onset* is rapid, acute, and the symptoms similar to those of acute gonorrhœal orchitis. The acute stage lasts five or six days, and usually after twenty-five days ends in *suppuration* and in the formation of *fistulæ*. Sometimes an *infectious granuloma* develops.

The *chronic form* of tubercular testicle has similar prodromes as the acute, and comprises *three stages* (induration,

softening and fistulization). The *induration* is an indolent process, painful only on palpation or from a blow. One feels the irregular, unequal hardening, principally seated at the head of the epididymis and above all on the organ that caps the gland like the crest of a helmet. The testicle is not much altered, but a slight, symptomatic hydrocele is usually present. The *vas deferens*, or excretory duct of the testis, taken at both ends, is moniliform, thick, irregular and the extremities of the seminal vessels are indurated. The prostate is also involved. The *softening* is sluggish, soon followed by fluctuation, then by adhesions to the skin, which becomes purple and lax. *Fistulization* is an ulcerative process, in which the fistulæ formed, discharge a sero-purulent fluid, and present purple, detached, rugged edges. The fistula is connected to the testicles by fibrous tracts, and its favorite seat is usually backwards and downwards.

The *treatment* consists in emptying, scraping and packing the abscess with iodoform gauze. A tubercular abscess should never be allowed to open itself spontaneously. After scraping the sac, irrigate with *Bichloride of Mercury* solution. If *fungoid tissue* develops, irrigate the ulcers with a weak solution of *Chloride of Sodium* (one tablespoonful to the litre).

In *chronic cases*, if called early to the case, no surgical interference is required. Treat the patient according to indications. *Locally* the only thing to do is to prevent acute attacks, but if an abscess forms, try puncture and follow it by the injection of iodoformed ether, or, if necessary, evacuate the pus, remove the epididymis entirely, as well as the funicular portion of the *vas deferens*. Leave the sound testicle untouched, whose moral and secretory role is so important. When the *secondary infections of the late stages*, associated to the tubercular process, aggravate the local condition and affects the gland itself, perform *castration*, in order to destroy the tuberculous focus, which is a danger to the sound testicle and to the whole organism.

INTERNAL TREATMENT.

This *local tuberculosis* demands—For the *acute stage*: *Belladonna* and *Mercurius*; for the *subacute*: *Asafetida*, *Conium* and *Mercurius Jod.*, and for the *chronic*: *Jodium*, *Carbo Ani.*, *Tuberculin*, *Psorinum*, *Sulphur*. If the *tumor is painful* to touch: *Hepar.*, *Aurum* and *Rhus Tox* are

the best remedies. If the *swelling* is hard and shows no fluctuation: BARYTA JOD., CARBO ANI., CONIUM, JODIUM and MERC. JOD. should be studied. After the formation of pus: MERCURIUS, HEPAR, SILICA, LACHESIS. If the abscess remains open and *suppuration is prolonged*: SILICA, CALC. CARB., CALC. JOD., MERC. JOD., HEPAR. If *fistula forms*: SILICA, PHOSPHORUS, PHYTOLACCA, CALC. CARB., LYCOPodium and SULPHUR. If the *pus* is of bad character: SILICA, MERCURIUS, PHOSPHORUS, CARBO ANI., ASAFETID., CALC. CARB., RHUS TOX., KREOSOT., SULPHUR, PSORINUM; *very fetid*: ASAFETID., CARBO VEG., CHINA., PSORINUM, MERCURIUS, SILICA and SULPHUR. If the *ulcerative process is serious*: NITRIC ACID, MERCURIUS COR., ASAFETIDA, LACHESIS, ARSENICUM JOD. and HYDRASTIS. If the *ulcers become bluish*: LACHESIS, ARSENIC, LYCOPodium, SILICA; if they turn black: LACHESIS, SECALE., CARBO VEG., ASAFETID. and SULPHUR. If the *ulcers become fungous*: ARSENICUM, THUJA, CARBO ANI., LACHESIS, COM- OCLADIA, MERCURIUS, AURUM, PHOSPHORUS, SILICA, STAPHISAGRIA, SULPHUR.

SYPHILITIC ORCHITIS.—The testicle is often the seat of syphilitic manifestations, and the usual localization is at the level of the gland. The *epididymis* remains sound in more than half of the cases, but there are rare instances in which the epididymis alone is implicated; swelling and induration bearing only on the excretory duct. The *epididymitis* occurs at the *secondary period of syphilitic infection*, while the classic syphilitic testicle is a *tertiary manifestation*. In *syphilis*, then, contrary to what it happens in *tuberculosis*, the epididymis is almost always intact; or tumefied and indurated. The *vas deferens* is thickened, rigid and imparts the sensation of a glass-rod (Reclus). The gland is hypertrophied, globular, sometimes flattened, pebble-like and of a woody consistence as if encased. Sometimes we notice on the surface of the gland a series of small, hemispheric prominences, like pin-heads, shot or small hazel-nuts, incorporated in the testicular substance (Fournier). The tumor is very indolent; even the physiological testicular sensibility cannot be awakened. The trouble is usually bilateral.

Guibal divides *syphilitic orchitis* into *diffused*, *sclerosed orchitis*, *gummatous* and *sclero-gummatous orchitis*. The sclerosed diffused variety presents the gland as stated above, ovoid, flattened, woody, incased, with small projections and loss of

special sensibility and without adhesions to the scrotum. The gland cannot be distinguished from the epididymis. Frequently both testicles are affected, and *atrophy* is a common result. The *vas deferens*, the seminal vesicles and the prostate remain untouched. The onset is always insidious.

In *gummatous orchitis* there is a fluctuating nodosity in the anterior border of the gland, with red, glossy skin, ulceration and fistulization at the anterior part of the scrotum; ulcers with dry, carved, ragged edges and sulphur-yellow bases. Sometimes *syphilitic fungus*. In the *sclero-gummatous variety*, the firm nodules and sclerosis exist at the same time.

TREATMENT.—LOCALLY, friction with *mercurial ointment* or mercurial irrigations are recommended. Internally, KALI JOD. is the leading remedy, but sometimes MERCURIUS JOD., AURUM MUR., MERCURIUS, CORR. and HEPAR. are indicated. When *fungous ulceration takes place*, THUJA, ARSENIC JOD., JODIUM, NITRIC ACID, LACHESIS, CARBO ANI., CARBO VEG., PETROLEUM, SILICA and SULPHUR should be considered. If *atrophy* results: BARYTA JOD., ZINCUM, RHODODENDRUM, PLUMBUM or SULPHUR, CALCARIA CARB. and CUPRUM.

**GENUINE CREPITATION, ABSOLUTELY INDISTINGUISHABLE BY THE EAR
FROM THE CREPITANT RALES OF LOBAR PNEUMONIA, IS
AN OCCASIONAL PHENOMENON OF PLEURISY.**

BY

WM. A. HAMAN, M. D., READING, PA.

“In pneumonia the breath sounds are audible, bronchial and most plainly so over the area of greatest dullness. It may also be that a few crepitant rales will be caught at the close of deep inspiration, *which, of course, would settle the matter.*” This quotation is the fourth section of the differential diagnosis between acute pleurisy and pneumonia, and is found in the recently issued “Diseases of the Lungs” (Babcock), page 731.

I have italicized the clause, the accuracy of which I question, and as the book came to hand while I was treating an interesting case of pleurisy which demonstrated the fact that *crepitation does not settle the matter of diagnosis*, I thought the sub-

ject of crepitation in pleurisy of sufficient importance to warrant detailed inquiry.

The differential diagnosis of pleurisy from pneumonia is commonly not attended with much difficulty if the physical signs are interpreted from the viewpoint of the associated phenomena.

"Unquestionably there come times when even the experienced auscultator is in doubt as to the nature of the adventitious sounds" (Babcock), and in spite of our diagnostic resources being so wonderfully augmented through the introduction of the aspirator needle, it is well to bear in mind the fact that "a physician well read in the book of nature knows that he cannot always distinguish between pleurisy and pneumonia" (Albutt's *Sys. of Med.*).

I doubt that there is any physician of experience who, even while alive to the possibility of making a mistake in these diseases, has not, for a time, been led into error.

Crepitation, as one of the modifications of the friction rub in pleurisy, is not a recent discovery by any means. As long ago as 1844 MacDonnel, of Montreal, drew attention to this friction rale.

Some modern writers on the physical signs of pleurisy and pneumonia do not sufficiently emphasize the mischievous possibilities of this pleural crepitation in differential diagnosis, and some pretentious works on medicine do not even refer to it. The only writers on homœopathic medicine who specifically refer to this auscultatory phenomenon in pleurisy are Goodno and Jousset. Bartlett, our best writer on diagnosis, ignores it altogether.

In common with the other friction sounds of pleurisy it can only be heard prior to the effusion of sufficient liquid to separate the pleural surfaces; and again after its absorption, when a reapproachment of these surfaces occurs.

When the apposed pleural surfaces are coated with thick layers of fibrinous exudate (up to one inch in thickness) it is difficult to conceive how a rough, rasping friction fremitus or sound can be produced. With thinner deposits of fibrin this is more conceivable. But with the condition of thick deposits of lymph the separation of these sticky, adherent surfaces in respiration is, I think, the state attended with the production of crepitant rales.

Although it is the custom to speak of pleural crepitation as

a modification of the friction rub, yet, from the foregoing observations, it is apparent that it results from the breaking of adhesions and not from friction.

This "may be so much like crepitation that even long practice in auscultation will not enable us to determine at once whether the fine sounds we hear are the friction of a roughened pleura or the vesicular rales of an inflamed lung. Nor is it, in some cases, less perplexing to discriminate between fine friction sounds and fine moist rales. By the sound alone it is often impossible; concomitant phenomena must be taken into account. A friction sound is mostly confined to a smaller space, and is uninfluenced by cough; while cough changes the position and the distinctness of vesicular rales. Yet even this rule is not absolute. The features most at variance between the friction sound and crepitant rales are: that the friction phenomena are not strictly limited to inspiration as are the vesicular rales, are not seldom coarser in expiration than in inspiration, are less uniform, and that their seat is more circumscribed.

Their production nearer to the ear may assist us, but not always. The reason why some of the finer friction sounds resemble so closely fine moist rales or crepitation is apparent when we reflect that the irregularities in the pleura may be slight, and be surrounded by fluid which keeps them moistened (DaCosta). Bruen (*Physical Diagnosis*) suggests the utility of fixing the chest walls in differential diagnosis. When an assistant fixes the lower two-thirds of the thoracic walls with the hands the doubtful sounds will be found to have disappeared if of pleural origin, but will persist if they are vesicular rales.

Mrs. Irwin C., 38 years old, was chilly during the greater part of May 3rd, 1907. As she was "cleaning house," she paid no special attention to this until late in the evening, when she developed pain in the right side, dry cough and fever. At my visit her temperature was 102.5 F., but there were no physical signs of thoracic mischief.

May 4th.—Temperature was 103.5; she had sharp pains in her right chest, in the infra-scapular and axillary regions; frequent painful coughs without any expectoration and, on deep inspiration, "showers" of crepitant rales in the extreme right base of the chest.

May 5th.—Temperature was 102.2; crepitation was as pronounced as before and occupied a larger area, right chest posteriorly from scapula to the base and forward latterly as far as the anteriorly fold of the axilla. Cough was as pronounced but absolutely without any expectoration. Vocal fremitus and broncophony were not so marked as on the left side. The urine was decidedly albuminous. The addition of solution of silver nitrate to acidulated urine resulted in the production of cheesy silver chloride that floated some time before sinking.

May 6th.—Temperature was 102. Very little cough, absolutely no expectoration as yet. Crepitation was still present in the same areas as before. Vocal fremitus and broncophony were less marked than on the other side. Slight dullness on percussion over the right lower chest was noticed for the first time, but no tubular breathing could be detected.

Up to this time I regarded the case as one of pleuro-pneumonia. I was misled by the crepitant rales. They were perfectly produced. I never heard them more distinctly and plainly. This great distinctness is, in itself, a suspicious circumstance.

They were solely inspiratory, occurring most plainly at the close of a deep inspiration, in "showers" of fine cracklings uniform as to size, intensity and sharpness. I was not able to detect a friction rub at any time.

The diminished bronchial voice, vocal fremitus and absence of tubular breathing I explained by assuming that a very thick layer of lymph existed on the pleural surfaces interfering with the conduction of sounds, but I failed at this time to recognize that this condition would also surely suppress any crepitating sounds having their origin in the pulmonary alveoli; in consequence the crepitation in this instance must have had some other origin than within the air cells. I was much puzzled at the absence of the characteristic expectoration of pneumonia, which at this time is the only symptom of this infection entitled to the dignity of being regarded as pathognomonic. Years ago crepitation was regarded as pathognomonic of pneumonia, but it has been robbed of this honor. The realm of pathognomonic signs of disease is contracting in about the same way that the list of functional diseases is diminishing. We will make fewer mistakes if we agree with the statement that "there are no pathognomonic symptoms of any disease, nor is there any royal road to diagnosis." (Albutt's *Sys. of Med.*)

The absence of sputum was puzzling. We know that in the pneumonias of old people, children and drunkards sputum is occasionally entirely wanting, and at the age of my patient, 38 years, I thought the absence of sputum might be another variant of this freakishness.

From this time on there was very little change in the physical signs until May 13th, the tenth day of the disease. I had abandoned the diagnosis of pneumonia because the crepitation should have been suppressed by hepatization; instead, it continued to be as plainly heard as at the start. Neither were sub-crepitant and still coarser rales co-existent, as one would expect as late as the tenth day. The temperature declined by lysis until by May 13th it reached 99.5.

On May 12th (ninth day) the crepitation was still perfectly produced in the same areas as a week before. On May 13th the crepitant rales were almost completely dissipated, being heard at only a few very circumscribed places. Dulness over the lower half of the chest was more marked, fremitus and bronchial voice were quite absent.

Clearly, an effusion of serum had taken place during the preceding twenty-four hours sufficient in quantity to separate the pleural surfaces almost completely. I applied two pieces of cantharidal plaster 3x4 inches, twelve hours intervening between their application, with the result that by the 15th, i. e., in forty-eight hours, the effusion was absorbed to such an extent, and the exudate on the pleural surfaces so modified that the vesicular murmur was in evidence again; the dulness on percussion was not so marked, and vocal fremitus had reappeared. Crepitant rales could be heard at only a few points; no sub-crepitation was noticeable. My patient felt well and was quite convalescent. This was undisturbed and she needed very little further attention.

My object in applying the cantharidal plaster was for the absorption of cantharidin in quantity. This is our most similar remedy for pleurisy; I had no thought of counter-irritation in using it.

This case is a beautiful illustration of pleural crepitation and establishes the fact that it is quite clear that crepitation must be defined as a fine crackling rale of a dry character produced either in the air cells or in the pleura. It will not be amiss at this time to call attention to the belief of some very able diagnosticians that all crepitating rales are pleural in ori-

gin and that none are produced in the pulmonary alveoli. This belief seems to have special significance when we recall the teaching that all lobar pneumonias are accompanied by pleurisy.

It would be an injustice to the distinguished author of Babcock's "Disease of the Lungs" not to mention his consideration of the subject of pleural crepitation in other sections of his articles on diseases of the pleura and on lobar pneumonia. It was accidentally omitted from the section on the differential diagnosis of pleurisy.

PHOSPHORIC ACID PICTURES.

BY

W. B. CARPENTER, M.D., COLUMBUS, OHIO.

(Read before Materia Medica Bureau, American Institute of Homœopathy,
June 19, 1907.)

At the mention of my subject I am sure you immediately see one of the pictures to which I refer. It is memory's picture of the physiological action of the drug obtained by the voluntary or accidental application of the acid to some human organism. In this picture some features appear more prominent and distinctive than the others, as, for example, (a) *debility* with indifference, apathy, torpid mind and depressed sensorium (a stupor essentially superficial); (b) an *irritation of mucous surfaces*, a tickling in the nasal passages requiring a boring of finger into the nose, and followed by epistaxis—a tickling in the chest about the ensiform cartilage inducing dry cough, on lying down, associated with dyspnoea and debility; an irritation in some portions of the intestines inducing frequent large watery discharges, but not of themselves debilitating; profuse discharge of clear or milky urine at night; (c) *disturbed physical conditions* similar to those due to such emotions as grief, disappointed love, homesickness, and accompanied by a crushing weight on the vertex; (d) an irritable weakness of the cerebro-spinal nervous system, characterized by burning and tingling or crawling in spine or along individual nerve tracts, and such evidences of slow or chronic nerve waste in central and vasomotor centres as headache and debility from study, long-lasting effects of seminal emissions, or frequent child-bearing, a dizziness as though he would fall,

or when lying down as though the feet were higher than the head, etc., etc.

It is easy for memory from these "high lights" to complete her picture, and show in detail all the symptomatic effects of drug action. Under this picture you see the name of the artist "natura pinxit," and right skilfully have her fingers portrayed the results of the conflict between the alien and the native—so skilfully, that every student of homœopathic materia medica (and every physician everywhere ought to be one) would have no trouble in reading, understanding and naming. But when we turn from this to the therapeutic field we see many pictures, but rarely one so clear and full as above outlined. Nevertheless, some pictures from this gallery will be of interest in their similarities, their correspondences, their differences, and so helpful to the general practitioner.

You see, for instance, approaching, a man, tall, well formed and proportioned, with black hair, and well-molded features, whose bearing and movement indicate culture and refinement and grace, and you will more than likely say to yourself, a splendid *phosphorus* picture. But let this same person approach you in a slovenly, listless manner, with no evidence as to care of body or clothing, with every step a seeming effort, and tell you how depressed and gloomy he is, what a change he had experienced from his usual snap and vigor, what a burden was his in his every waking moment, for his memory was uncertain and treacherous, his head was heavily weighted with pain and apathy, his breathing interrupted by a dry, hacking cough, his gait slow and stumbling, his tissues relaxed and flabby, his every organ sluggish, unless perchance it be the kidneys which discharged alternately a very unusually great quantity of clear and milky urine, etc., and you are again reminded of phosphorus only by the underlying physical characteristics; but the new pathology and symptomatology are so different as to form a new picture both physiologic and therapeutic, a picture closely related to the old and yet so different in detail—you will have no difficulty in recognizing *phosphoric acid* picture No. 2.

Again, let me show you a picture of a young woman who should have been by the laws of heredity and development strong and robust, but who came home from a course of training looking to the work of a deaconess, only to drop upon a bed of pain and sickness. She was "tired, oh, so tired"; there

was headache as of a heavy weight or pressure on top of the head and at the base of the brain and cervical region; and, in addition, frequent periods of intense throbbing pains in the frontal and parietal regions, with dark red face and dilated pupils; there was loss of flesh, especially in face and about the neck; the tongue was dry, with dark streak down the centre; the temperature was not at any time over 101 degrees; there was considerable pain in the stomach and epigastric zone, when anything but hot liquids was taken; the bowel movements were either in lumps or, in long, slender masses; there were clusters of pinkish spots or discolorations very like purpura about the principal joints, each of these areas being sore to touch; there seemed to be a tendency to an aggravation every second day; there was a sensorial dullness from which she was easily aroused, and a sensation as though her feet and limbs were elevated above her head.

My treatment medicinally was based upon the picture which was shown me at the bedside, and which I now ask you to note as Phosphoric Acid Picture No. 3.

Phosphoric acid has no known action on the kidneys themselves, but by its influence upon organs and functions, and changes that are further back than the secreting organs, it becomes an important agent in combatting serious difficulties that manifest themselves in the urinary tract. Hence we are to see Picture No. 4.

A man, aged 37, of good family history, brings a history of an all-winter's illness with so-called "heart disease," the main noticeable symptom being its very rapid beating. Great emaciation and prostration followed, with a persistent diarrhoea, associated with flatulence. On thorough examination it was found that the patient was really a sufferer from exophthalmic goitre, none of the glands having been very greatly enlarged. Seven pints of urine were passed in the twenty-four hours; no traces of sugar or albumen. Couple to these conditions the fact that their origin seemed to be in a severe attack of the gripe, and nerve exhaustion afterward from unusual work and worry, and you will see why I interpreted this as another phosphoric acid picture. Incidentally I may add in confirmation that the remedy promptly controlled the urinary symptoms, acted as a *tonic* to the general system, and the manifestations of the goitre are fast disappearing. This last seems to be a new field for the drug, and it remains to be seen how much

and how permanent will be the improvement in the systemic malady.

Any of you may soon meet, as I recently did, another phase of depression and exhaustion. Mr. F., of mature years and large interests, noticed a provoking loss of memory both for facts and words, or small details. Some apathy was manifest, but no indication of special trouble in any organ or other function, except a large deposit of urinary sediments. These were mostly the earthy phosphates and the triple phosphates, the others being oxalates and the urates. The delineation here seemed to be that of nerve waste or exhaustion, but the stage of tissue change had not been reached. Mr. F. had availed himself of a sixty-day vacation from business cares and duties, yet his enemy still pursued.

After studying the case it seemed to be plainly a phosphoric acid picture, which I report as No. 5 in our list. The remedy in the 3x dilution promptly gave a good report of itself, and the man has remained well since then, now over two years.

I am sure another picture of this remedy occurs to you, and I know you must have studied it over and over again. I will refer to it only briefly.

It is the picture of the essential characteristics of diabetes, and some forms of Bright's disease (and especially when one of these diseases supervenes upon the course of the other). When it is remembered that there is strong probability that both these diseases have their fundamental origin in disturbed nerve function, and when it is also remembered that phosphoric acid only pictures itself pathologically to us by and through its influence on nerve centres we can easily see why it is claimed that this remedy has won its greatest laurels in the management of those diseases.

The clinical pictures I report are from my own experience, and my aim has been to impress the importance of remembering and using so valuable a remedy. It comes very near many times and in many ways to Phosphorus, China, Ignatius, Silica, Capsicum, Rhus., and ought to be given frequently when some other is selected. For symptoms of the sensorium and of febrile diseases it seems best to use 6 to 30th dilution, and for the diseases of other type and form the lower potencies.

SEBORRHŒA: ITS MANIFESTATIONS, DIAGNOSTICS AND TREATMENT METHODS.

BY

RALPH BERNSTEIN, M. D., PHILADELPHIA, PA.

Dermatologist to the West Philadelphia General Hospital and Dispensary; Clinical Instructor in Skin Diseases, Hahnemann Medical College, Philadelphia, etc.

(Read before the Homœopathic Medical Society of Chester County, at Downingtown, Pa., May 9th, 1907.)

MR. PRESIDENT, MEMBERS AND GUESTS OF THIS SOCIETY:—A short time ago I had the pleasure of reading a paper on "The Evolution of Baldness" before the Germantown Homœopathic Medical Society of Philadelphia. In that paper I laid great stress upon the close relationship which existed between baldness and seborrhœa, but did not enter into details on the question of the latter. So that when I was honored by being asked to present a paper before your worthy society, I decided to present to you the subject of seborrhœa, being a companion paper to the one on baldness previously presented. In my paper I shall not take up your time with disputed opinions, as to the causes and classifications of seborrhœa, nor shall I attempt to enter into histopathologic details, but shall limit myself entirely to clinical observations as recorded in the skin department of the West Philadelphia Hospital and Dispensary, and in the skin section of the Hahnemann Hospital Dispensary.

I shall begin with a general consideration of seborrhœa, touching upon its relationship to comedo, acne and follicular psorospermiosis. I shall then discuss the so-called senile wart and pre-epitheliomatous senile seborrhœa. Pityriasis Steatoides and its relationship to seborrhœa and eczema will next be given attention. I shall then present seborrhœic psoriasis, concluding with differential diagnosis, and internal and topical treatment. Let me begin, then, by stating that seborrhœa usually first presents itself at the time of puberty, as an overproduction of sebum, which gives to the skin a greasy, oiled appearance, and which is probably due to an altered condition of the skin glands. This, and only this condition, can be considered a true seborrhœa; that is an oily condition of the skin, without the addition of scales, crusts or squames; when such a condition does exist then we have a pityriasis or an eczema. Seborrhœa thus defined may appear upon the hairy and non-hairy

portions of the body, the scalp, the eyebrows, the pubic parts and the armpits, while the non-hairy parts presenting this seborrhœic condition are the nose and adjacent parts of the cheeks, the forehead and chin, the presternal and interscapular regions and scrotum.

Functional symptoms, as a rule, are wanting in a true condition of seborrhœa. There is occasionally slight itching, especially when there is profuse sweating. Congestion and inflammation are wanting; the parts are cool and pallid; the orifices of the sebaceous glands are large, and are filled with a visible, whitish, yellowish plug, which can be readily expressed with the thumb nail. If we were to take this very matter so expressed, place it upon a slide, wash with ether, then stain with any aniline dye, and place beneath the microscope, great numbers of very fine bacilli would be revealed to us. These bacilli are a constant factor in all cases of true seborrhœa, and are known as the microbacilli of seborrhœa, resembling somewhat in appearance the tubercle bacilli. Seborrhœa usually has two periods of intensity—the age of evolution and involution,—being seen in all stages and degrees of intensity. Let us consider for a few moments what happens to these fatty plugs which exist in the dilated orifices of the sebaceous glands, and which will demonstrate to us the very close relationship which does exist between seborrhœa and comedo and acne, for comedo is really only a variety of seborrhœa, and acne a final stage of an infected process. As long as the dilated orifices of the sebaceous glands continue to discharge their fatty secretion there is no comedo, but once the process of free discharge ceases, then we have an occlusion of the duct with the formation of an impacted fatty cylinder, whose point soon becomes black, quite discernable in the gaping orifices, and thus we have the comedo, which, indeed, contains many a colony of microbacilli. Let us follow onward to the process of acne formation. These very glands which have become occluded and have given way to the formation of comedo become the seat of a staphylococcic infection, for the comedo has very little resistance, and ere we are aware of it, infection takes place, and we have the comedo giving away to the formation of an acne lesion.

I shall say a few words at this point, with reference to another condition, which no doubt likewise bears a close relationship to seborrhœa. I refer to follicular psorospermosis,

a condition investigated by Darier, and which is probably super-seborrhœic in nature. In the seats of seborrhœic manifestations, occasionally are to be seen, in the dilated sebaceous orifices, brown conical crusts, raised on a papular projection. It is most frequently to be seen in the nasal furrows, the fold of the chin and on the forehead; the condition is chronic, and may be seen at any period of life, but most frequently seen in the adolescents of the poorer classes, where the essentials of hygiene are usually neglected. The true nature of this condition is disputed.

I shall now return for a few moments to a further consideration of simple seborrhœa, and you will recall that I refer to that condition of pure seborrhœa, without the presence of squames or scales. When the scalp is involved, the hairs are covered with an excess of oil; they are greasy to the touch and tend to mat together, and in the uncleanly a rancid, offensive odor may be present. If the head be bald, the uncovered top has its characteristic shiny appearance. This condition of true seborrhœa seldom remains long, for other factors enter in, and there is soon a condition of pityriasis superimposed, which later may lead to an eczematous condition.

The forehead is frequently the site of a profuse seborrhœa, and next to the nose is one of the first regions in which it occurs. As usual, there are to be seen the profuse outpouring of oil, with the dilated sebaceous orifices, with its characteristic fatty plug and its myriads of microbacilli. Seborrhœa Simplex has a characteristic site of election in the anterior and posterior thoracic regions. On the upper portions of the chest it is characterized by the fact that the discharge of oil is not as profuse as upon the nose or forehead; that the skin is smooth and somewhat shiny, and lastly, the sebaceous pores are marked by pale brown spots. Seborrhœa, posteriorly, between the shoulder blades, is usually quite well marked; there is frequently here a hyper secretion of both sebum and sweat, a condition named by Besnier as hyper-stea-thidrosis. This location is usually the seat of marked comedo and acne complication.

Before leaving the question of seborrhœa simplex, I should like to say a few words with reference to a fatty epidermic secretion of the scalp in infants, which no doubt primarily is a simplex seborrhœa but later on becomes associated with epidermic debris, and is known as milk crust or skull cap. The

crusts which form may cover the entire scalp, or may be limited to very small areas; they are yellowish to brownish in color, may be thick or thin, moist or dry, and are often associated with an irritation of the adjacent skin, which results in the formation of a purulent exudation. There is no doubt but that this condition is the result of neglect, and may lead to permanent alopecia.

We are now ready to take up the consideration of the flat senile seborrhœic wart, and which should probably be properly called a super-seborrhœic wart. Superimposed on a seborrhœa of old age, and occasionally in those who are pre-senile, is a flat seborrhœic wart. It is quite flat, and is scarcely raised above the level of the skin. Its color is a yellowish, brownish or dirty gray. The skin has an unclean appearance and is covered with senile scum. These flat warts are said to be contagious, and frequently multiply in great numbers after the fortieth year. They are to be found upon the nose, the backs of the hands and upon the back, although no part of the body is especially exempt, especially where there is a seborrhœic condition existing. Epitheliomatous transformation of these lesions occasionally occurs, but not constantly.

Pre-epitheliomatous concrete senile seborrhœa now demands our attention. There is no doubt but that this condition is of a similar nature as the senile wart. It is of slow formation, and consists of hard, yellow adherent crusts which are quite adherent to the underlying skin and are connected to it by a series of prolongations, which penetrate into the orifices of the sebaceous glands. The process is extremely slow, and may continue four or five years. Beneath these crusts of concrete seborrhœa, epithelioma often develop.

We shall next take up the consideration of those seborrhœas which are associated with squames and crusts. Those which are associated with squames alone I shall designate as *pityriasis steatoides*; that is, a seborrhœa with fatty scales or squames, and those associated with crusting and inflammation of the integument beneath. I shall refer to a condition known as seborrhœic eczema.

I have already demonstrated that seborrhœa is a hypersecretion of oil or sebum, pure and simple, and have further demonstrated that simple seborrhœa is not a disease associated with scales or squames, as it is usually understood. I now take up such a condition and refer to *pityriasis steatoides*.

Let us first refer to the scalp, as it is here that we see this condition in its most typical form. We well know that seborrhœa is one of the factors which is more than responsible for baldness, bearing in mind the presence of the fatty microbacilli ever present in the sebaceous pores. I shall refer to seborrhœa as the third stage of a process which has produced baldness, the second stage being a condition of pityriasis, which simply means a scaly condition, a condition of pityriasis steatoides, a fatty pityriasis as it were. The first stage, being a pityriasis simplex, a simple scaling of the scalp, the scales dry and powdery, with the presence of the bottle bacillus of Unna. I have given a detailed account of the three stages of baldness in my paper on "The Evolution of Baldness," as published in the June issue of THE HAHNEMANNIAN, to which I would refer those interested.

Let us consider the condition of pityriasis steatoides elsewhere. In the nasal furrow and the eyebrows it presents itself as small pale yellow scales, which are accompanied with local itching and have a tendency to recur very rapidly after removal. Occasionally, especially in women, a pityriasis, steatoides, will extend beyond the margin of the hairy scalp, usually for not more than half an inch, there is very slight induration and redness of the skin. The lesions are scaly and are often covered with fine yellow particles. Occasionally there is marked crusting. This condition is known as the corona seborrhœica, so named by Unna. The presence of fat can be demonstrated by the use of the blotting paper.

The regions of the moustache and beard are often the seat of a pityriasis steatoides, and consists of numerous partly detached scales, which are yellowish and greasy in character. These scales are to be seen between the hairs at their base. There is intense itching and a continual loss of hair.

Pityriasis steatoides may affect the bald. Usually on the vertex may be seen circinate or gyrate outlines covered with small yellow fatty scales. It is to be remembered that the presence of the bottle bacilli and the microbacilli of seborrhœa can be demonstrated in all of the preceding lesions described.

The seborrhœic pityriasis to be seen between the shoulder blades and upon the chest presents itself as pink spots or red papules surmounted with fatty scales scattered here and there, assuming many different forms. Occasionally there is coalescence, with the formation of odd gyrations. These patches

are clearly defined by a fatty yellow scaly or crusted border, which, on being removed, reveals a moist surface. This condition is usually chronic and tends to remain for a long time.

Let us for a few moments consider the process of eczematization which frequently takes place in the regions subject to seborrhœic manifestations. Beneath the fatty scales of a pityriasis steatoides secondary inflammation often occurs, being the reaction to an existing morbid condition. There is exudation, often matting of the hairs in the hairy regions; itching is greatly increased, and later there is a formation of thick, heavy crusts. This is the condition known as seborrhœic eczema, but should more properly be called seborrhœic dermatitis.

Seborrhœic psoriasis is our next theme. This form of psoriasis differs from the usual forms in the fact that the scales are not of that characteristic white pearly character so commonly seen, but are instead of a yellowish, greasy character. The patches in this form are not as large, there is less bleeding on the removal of the scales and there is less infiltration. This form of psoriasis has a predilection for the medio thorax, which other forms do not have.

Before we can take up the question of treatment we must necessarily be concerned with the matter of diagnosis, for there are a few conditions which might be more or less confusing and thus deter us from coming to correct conclusions. To obviate such possibilities I shall go over the differentiating points, which will be of interest to us, in coming to a correct diagnosis.

I shall first consider eczema, that is, a pure eczema, non-seborrhœic in character, for correct diagnosis here is important and essential, as the methods of treatment are quite diverse. In a pure eczema there is always evidence of inflammation, in the acute form marked weeping and in the chronic forms marked infiltration. Where there is crusting or scaling there is an absence of fat, or oil, and the itching is much more intense.

Psoriasis of the scalp may at times be mistaken for seborrhœic dermatitis, but if we will remember that in psoriasis the hairs penetrate the crusts, which are non-greasy, and beneath which bleeding points are apt to present themselves; whereas in seborrhœic dermatitis the crusts are greasy, the hairs do not penetrate, but are matted together beneath the crusts, and there is a serum-like exudate. Lupus Erythematosus can easily be differentiated from allied conditions by recalling the fact that the scales are adherent and dip down into the follicles, and

are non-greasy, while there may be present atrophic changes with the presence of scars.

Ichthyosis is a condition which is usually present from birth, the scales are dry and again non-greasy, the condition may be universal, and is usually better in the summer time.

Syphilis, with its crusting lesions, may at times simulate crusting seborrhœas, yet if we will continue to bear in mind that one point, presence or absence of oil or fat, our conclusions will often be quickly reached; yet at times seborrhœa may co-exist with syphilitic lesions, which must as well be born in mind.

Diffuse Trychophytosis Capitis is occasionally seen, and has been mistaken for seborrhœa. The microscope here will aid in a diagnosis, presenting large numbers of the fungi, and beneath the scales are to be found reddish points or papules.

Pityriasis Rosea demands a few words in the way of differentiation, for it very often closely resembles seborrhœic conditions. Let us not forget the "mother spot" which sometimes precedes the general eruption for a week or ten days; then again the scales are fine and branny, the patches are smaller and often ovoid in shape, and pinkish in color, and the eruption may last from a few weeks to several months.

We are now ready to consider the question of treatment. As in all skin diseases, there is no reason why the diet, the general hygiene and the digestive tract should not be regulated here, for it is more than essential and productive of good. Topical treatment demands sulphur, in its various preparations, and happily in sulphur we have a remedy par excellent. In those simple oily seborrhœas so common about the nose and forehead and chin there is nothing better than the *lotio alba*, that is, the compound zinc sulphide solution, a drachm each of zinc sulphate and potassium sulphide and four ounces of rose water. The ingredients must be fresh, especially the potassium sulphide; then there will be produced a white precipitate, which gives the solution its name. This should be applied upon the affected oily parts, once daily, the length of time of its application being regulated by the amount of dermatitis caused. If the reaction be too great, the ingredients in the solution can be lessened, or the lotion should be withheld for a day or two, and a mild soothing ointment applied. The parts should as well be washed with a mild antiseptic solution daily, and tincture of green soap, to remove the debris.

In the crusty or scaly forms of seborrhœa, whether upon the scalp or other parts of the body, the scales or crusts should first be carefully removed with the use of the salicylated olive oil, five to ten grains to the ounce. The following ointment should then be applied daily: Sulphur, one drachm; salicylic acid, twenty grains, and cold cream, one ounce. Cold cream as a base in these conditions acts most admirably. It is not sticky, disguises more or less the odor of the sulphur, with its delicate odor of roses, and is quite pleasant to use, standing up very well in hot weather. This same ointment can as well be used in cases of simple seborrhœa, corona seborrhœicum, skull cap, follicular psorospermosis, senile wart, concrete seborrhœa, in fact, in any of the seborrhœic conditions; regulating the strength of the ingredients according to the age of the patient, the amount of inflammation present, and its chronicity. For the detailed treatment of the scalp conditions, I would refer you to my article on baldness, as previously mentioned.

In conclusion, I must again repeat, what clinical experience demonstrates, day after day and year after year, and that is, the efficacy of the indicated homœopathic remedy. Demonstrated by the fact that patients just cannot help getting well, even when they repeatedly fail and refuse to carry out the prescribed topical treatment, as the general run of dispensary patients are wont to do. Among the more important remedies I would refer you to Sulphur, Sepia, Am. Mur., Bryonia, Calc. Carb., Kali. Sulph., Petroleum, Phos. and Sepia.

RELIEF FOR TOOTHACHE. A small piece of absorbent cotton may be introduced into the cavity of a tooth, having been first moistened with the following solution:

R

Cocainæ hydrochlorid_i, 0.25 to 0.50 (gr. iv-gr. vii).

Menthol_i, 2.0 (gr. xxx).

Camphoræ, 1.0 (gr. xv).

M. Triturate until liquefied.

Sig. Apply to the cavity of the tooth and renew every half hour until the pain is relieved.

Robin in *Journal de Medecine de Bordeaux*, May 5, 1907.

REPORT OF A CASE OF RENAL CALCULI.

BY

J. HUBLEY SCHALL, M. D.,

Genito-Urinary Surgeon to Jamaica Hospital, Brooklyn, New York.

(Read before the New York Academy of Pathological Science.)

MRS. R., aged 37 years, married. No family history of gout, rheumatism, tuberculosis or other constitutional disease. Patient has had six children; the last child was delivered with forceps. Excluding a severe attack of scarlet fever at the age of 17 years, she has always been healthy.

About six months ago she complained of more or less abdominal discomfort, of a dragging nature. At times she had a sensation of something falling down or moving about in the abdominal cavity, particularly when rising from a sitting posture. There is no history of pain in the back or symptoms referable to the kidney, nor anything that might be termed renal colic. There was, however, at one time a trace of blood in the urine.

Two months ago she was troubled with obstinate constipation and slight dyspeptic symptoms, which caused her to consult her physician. After a physical examination her symptoms were attributed to a displaced right kidney. An operation was advised, to which the patient consented.

On February 11th, 1906, she was admitted to the Prospect Heights Hospital. An examination of her abdomen revealed a large, freely movable mass, low down in the abdomen. It could be readily pushed back into the region which should be occupied by the right kidney.

The manipulation caused little or no pain. The left kidney was slightly enlarged.

Urine voided in twenty-four hours, 33 ounces; light amber in color, acid reaction; specific gravity, 1015; urea, 1.3; no sugar, no albumin.

The microscope revealed no blood disks, oval, round or spindle-shaped epithelial or pus cells.

February 15th, 1906. Patient taken to operating room for the purpose of anchoring the displaced kidney. The usual lumbar incision was made and on exposing the renal region the kidney was found displaced downward and forward to such

an extent that it was necessary to have it pushed up into the groin by pressure through the anterior abdominal wall. The kidney, being cleared of fat, was found much enlarged and fluctuating. The convex border was incised. The incision was followed by the escape of eight ounces of pus and numerous calculi.

The finger was introduced into the pelvis of the kidney, which was found much dilated and was no sooner touched than a hard body was felt, which proved to be a calculus the size of a pigeon egg. In attempting to extract it with a pair of forceps it was broken, the particles being removed with the fingers. The interior of the kidney was now the shape of a pouch about seven by four inches.

The largest calculus fitted into the dilated ureter. The exploring finger revealed the fact that most of the renal substance was reduced to a large fibrous sac. The pedicle was clamped, then ligated and what remained of the kidney removed. The cavity was packed with gauze and the wound allowed to heal by granulation. Immediately after the operation a goodly quantity of urine was secreted by the remaining kidney, which satisfied us as to its soundness.

The subsequent history of the case was uneventful. Five weeks after the operation the wound was closed and the patient doing well in every particular.

The stones are uric acid in composition with incrustations of phosphates. They number 792 and the total weight was 1,200 grs.

Recent analysis of the urine shows that the opposite kidney is comparatively healthy, as it has carried on the eliminative function perfectly enough for all practical purposes.

The case is exceptional:

First. Because of the number and the size of the calculi.

Second. Because of the absence of all symptoms referable to renal calculi, notwithstanding the fact that she was under observation two weeks previous to operation.

EDITORIAL

THE ALCOHOL LETTER.

WE have no doubt but that all of our readers have received a reproduction of the manifesto on alcohol which appeared in the *London Lancet*, and which is now being scattered broadcast among physicians through the efforts of the National Wholesale Liquor Dealers' Association. The circulation of this document in Great Britain and America was designed, of course, to give the use of alcoholic liquors the endorsement of the medical profession, and thus increase the use and the sale of these commodities.

It appears, however, that the effect of the proclamation will be quite different from what its promulgators intended. The anti-liquor sentiment is very strong in England at this time, and no sooner had the proclamation referred to appeared in the *Lancet* before a flood of letters were published in the medical and lay press, and a counter proclamation was issued, signed by some of the most eminent medical men in England, expressing views diametrically opposed to those set forth in the first communication. The agitation also led to an investigation of the origin of the open letter favoring the use of alcohol with the discovery, according to the London correspondent of the *Medical Record*, that it was prepared by a man who was not a member of the medical profession in the "interests of the trade," and who was successful in obtaining the sixteen signatures of medical men. It is further stated in the *Journal of the American Medical Association* that the letter submitted to the signers was materially different from that published in the *Lancet*, and a number of signers are said to have retracted their endorsement.

Whatever may have been the reason urged upon the signers of the document as to why they should thus put themselves on public record as advocating the use of alcohol, the purpose for which the letter was to be employed was not long in doubt. The pamphlet was distributed broadcast throughout the British Isles and placed on exhibition in all the taverns

and saloons. Thus some of the most eminent members of the medical profession were made the unwitting dupes of the liquor interests and have brought down upon their heads a storm of adverse criticism, which is not likely to add either to their professional standing or to their private interests. While the effect of this document will probably do more to injure the liquor interests than to advance them, nevertheless, it serves to show the caution that a physician must exercise in making statements which are likely to appear in the public press and perhaps utilized for a purpose far different from that which he had originally intended.

FOODS AND THEIR ADULTERATIONS.

A VERY complete and interesting volume dealing with this important subject has just been published from the pen of that well-known authority on food products, Dr. Harvey W. Wiley, Chief Chemist of the United States Department of Agriculture. While it is not possible in these pages to review all the features of Dr. Wiley's work, a few of them are of such practical importance to the physician that we take this opportunity of summarizing the views of the author regarding them.

From an economic and hygienic standpoint the question as to what shall be done with the carcasses of cattle suffering from tuberculosis is a very important one. Pathologists and veterinary experts are at wide variance of opinion on this question. No less eminent an authority than Robert Koch holds to the view that human and bovine tuberculosis are entirely distinct diseases and cannot be transmitted from cow to man or *vice versa*. In this view he has many adherents, and also many opponents, so that the question must still be regarded as unsettled. Dr. Wiley wisely says that, as it is impossible to decide this controversy at the present time, it is only right that the consumer should be given the benefit of the doubt, and if the flesh of an animal affected with a local form of tuberculosis is placed on the market it should be plainly marked as the flesh of a tuberculosed animal. Where the tubercular process is a general one and has affected most of the organs of the body, the carcass should unquestionably be condemned as unfit for food.

Oleomargarine is a substance which has been frequently and

bitterly maligned by the agricultural and dairy interests as a dangerous and objectionable food substance. Dr. Wiley does not consider it as such, but, on the contrary, states that when made under proper sanitary conditions from sanitary raw materials it is a wholesome and nutritious article of diet. He further states that it is particularly adapted to families who are under the necessity of practicing strict economy in the cost of food and that the only objection to its use lies in the frauds which have been committed in its manufacture and sale. Fraud of this form is certainly culpable and deserving of punishment. At the same time it must be remembered that starch, cottonseed oil and a hundred other foods in daily use are commonly used as adulterants or sold under assumed names in the same way, and yet, when sold as cottonseed oil, starch, etc., there is no legal restriction upon their manufacture or sale. In the case of oleomargarine, however, it is different, and we learn that if this substance is colored yellow artificially, in the same way that most of the butter sold in this country is artificially colored, the manufacturer must pay a tax of ten cents per pound, even though it be properly labeled and sold as oleomargarine. The object of this tax, of course, is to so increase the cost of putting oleomargarine in a desirable form on the market so that it cannot become a dangerous competitor of the dairy interests, as it is universally admitted that good oleomargarine can be produced much cheaper than good butter.

We know of no better example of class legislation on the statute books of our nation than this, and none that works a greater hardship upon the millions of consumers of such important staples as butter and oleomargarine. If the governmental taxes were removed good oleomargarine could be sold for twenty-five to thirty cents per pound. Why, then, should the public be compelled to pay a price for butter which has become little short of prohibitive to those in moderate circumstances, merely that the dairy interests may reap the benefit of this artificial inflation of price? It can be readily seen that if good oleomargarine, suited to the demands of the people, were placed on the market at twenty-five cents per pound, it would be consumed in enormous quantities by the laboring classes and those whose means render a saving of thirty per cent. on a staple article of diet an important consideration. This large sale of oleomargarine would result in a lessened demand for butter and consequently that article would drop in price, as

would also milk, cheese and other dairy products. No doubt this would react unfavorably, for a time at least, upon the dairy interests, but it is a well-established principle of political economy that any measure which is capable of reducing the cost to the people of bread, meat, butter, milk and other staple and necessary articles of diet is a distinct contribution to the common good. Certainly it is an evidence of gross inconsistency for dairymen and farmers to cry out against the enactment of laws which are supposed to confer special privileges upon trusts and other corporations when they themselves demand the continuance of laws which place upon milk and butter a fictitious price to the benefit of the few and to the prejudice of the many.

It occurs to our mind that only a short time ago there appeared in a prominent daily paper an article with large headlines proclaiming the strenuous efforts the publishers were making to prevent the dairymen in the city of Philadelphia from raising the price of milk to ten cents per quart. The hardships which this increase in the price of such an essential food as milk would place upon the poor and upon the laboring classes were dwelt upon, and very properly so, in all their details. And yet, paradoxical as it may seem, this same paper is one of the strongest advocates of the laws placing a prohibitory tax on the sale of oleomargarine, and thus artificially inflating the price of butter and of milk. Fortunately the game of politics does not demand a very high degree of consistency.

In the sale of cottonseed oil as olive oil we have practically the same problem to deal with as in the sale of oleomargarine for butter. But because cottonseed oil is thus fraudulently sold as olive oil, would it not be the height of folly on the part of the people of this commonwealth to place an enormous tax upon the manufacture and sale of cottonseed oil, so that it would be impossible to sell it at a lower price than is ordinarily demanded for olive oil? The nutritive properties of cottonseed oil are fully equal to those of olive oil, and there is no valid reason why its cost of production should be made five times as great as it is now, in order that the manufacturers and importers of olive oil shall not suffer from competition with the less expensive article. That the deception of selling cottonseed oil as olive oil should receive the most positive condemnation and punishment goes without saying.

The use of breakfast foods manufactured from various ce-

reals has become quite general during the last few years, largely through the extensive advertising which has been given them. The reports of the Department of Agriculture show that these foods are rarely subject to adulteration and they are chiefly prepared from oatmeal, corn and wheat. The chief argument against their general use is their cost. As Dr. Wiley remarks, there is no cereal in general use that is worth more than two cents a pound in the markets of this country, and many of them are worth even less, yet breakfast foods, which are only prepared cereals, are often sold for ten or fifteen cents a pound. Of course, the makers claim that this extra value is added to the foods by the processes which they are put through to make them more nutritious and more digestible. There is no reason to believe, however, that foods thus prepared are in any degree more nutritious or more wholesome than the freshly prepared grain. In fact, the continuous use of pre-digested foods by a person in health is more calculated to weaken and impair the power of the digestive organs than to strengthen them. As food for persons suffering from a disordered state of the digestion, these partially digested foods may have a place, but are of no advantage to persons in health. Unfortunately the poor, who are in the greatest need of knowledge of these facts, are the most ignorant of them, and the breakfast food proposition is an excellent illustration of how many persons who should practice the strictest economy in order to eke out an existence, often pay five or six times as much as is necessary for a cheap article of food under a different form or name.

LOWERED OPERATIVE MORTALITY AND IMPROVED RESULTS.—In summing up the causes to which he may attribute his better results, both in regard to operative mortality as well as post-operative morbidity, Werder says they are: A more simple and better aseptic technique, including the wearing of rubber gloves for all hands concerned in the operation; better diagnosis and more careful preparation of the patient, especially the acute inflammatory cases, whose abdominal section is delayed at least three weeks after subsidence of all acute symptoms; the employment of trained, absolutely reliable first assistant; centralization of all operative work, enabling the operator to give the greatest amount of personal attention to his patients; the careful closure and covering of all raw surfaces in the peritoneal cavity; the exclusive use of catgut prepared under personal supervision; a trained anæsthetist, who administers a minimum amount of anæsthetic consistent with good work.—*Amer. Jr. Obs.* Vol. LIV, 731.

GLEANINGS

ABORTION CAUSED BY X-RAYS. Lengfellner (*Munchener medicinische Wochenschrift*, No. 44, 1906) cites experiments on guinea-pigs, which fully confirm those of Tellner, showing that even short exposure of the abdomen to the action of the rays is able to destroy the life of a fetus even shortly before term. Alterations were found in the ovaries suggesting sterility. The cause of the fetal death could not be determined macroscopically.

THE TREATMENT OF BALDNESS. *La Tribune Medicale* for January, 1907, gives the following recipes (Ewald's treatment) for baldness. At the start apply:

R

Tincture of cantharides, 4 Cc.;
Balsam of Peru,
White wax, of each 8.0;
Oil of Rosemary, 20 drops;
Vaselin, 60.0.

Later, if the baldness persists:

R

Balsam of Peru,
Tincture of cantharides, of each 10.0;
Oil of jasmine,
Oil of neroli,
Oil of rose,
Oil of bitter almonds, of each 15.0;
Sterilized beef marrow, 50.0.

Brocq's treatment is as follows:

R

Acetic acid, glacial, 5.0;
Tincture of cantharides, 10.0;
Tincture of Rosemary, 25.0;
Tincture of jaborandi, 25.0;
Rum, 150.0.
Mix. Apply to the scalp daily.

Barré uses in baldness in convalescence from various diseases:

R

Hydrochloric acid, 4.0;
Essence of lemon, 150.0.
Mix. Apply night and morning.

Lassar uses in alopecia:

R

Naphthol, 50.0;

Alcohol, 100.0.

Wash the scalp with tar soap; then apply the above and wash in Van Swieten's solution.

A prominent dermatologist in New York uses the following formula as a cure for dandruff and incipient baldness; the amount of castor oil should be varied to suit the case, and the mixture should be well shaken before using:

R

Resorcin, ℥j;

Betanaphthol, ℥ss;

Chloral hydrate, ℥ij;

Tr. cantharides, ℥iv;

Tr. capsicum, ℥j;

Castor oil, ℥ss to ℥ij;

Cologne water, ℥iv;

Bay rum, enough to make Oj.

The following is taken from some therapeutic notes published in the *New York Medical Journal* of December 15, 1906:

When the baldness is not due to a parasitic cause, such as ringworm or favus, or to a general cause like syphilis, various methods have been recommended. Lassar (*Deutsche medicinische Wochenschrift*, July 5, 1906) applies the following:

R

Sodii carbonatis,

Potassii carbonatis, ää 15 grammes;

Saponis, 70 grammes;

Aquæ rosæ, 100 grammes.

M.

The scalp is to be shampooed with this preparation and with warm water, and washed with water at ordinary temperature, then dried with a towel. Applications are then made with:

R Hydrargyri bichloridi, 0.30 gramme;

Phenolis liquefacti, 6 grammes;

Aquæ destillatæ, 150 grammes.

M. To be applied for half an hour, on a compress.

When the compresses are removed the hair is dried in the air, and the scalp is next rubbed with:

R Thymolis, 0.25 gramme;

Alcoholis (90°), 100 grammes.

M.

After this has dried, a small quantity of the following pomade is used:

R Acidi salicylici, 1 gramme;

Tincturæ benzoini, 2 grammes;

Olei olivæ, 50 grammes;

Olei bergamottæ, gtt. xv.

M.

The *Revue pratique d'obstetrique et de gynecologie* (Oct. 10, 1906) recommends a similar method of treating baldness: The scalp is to be washed with tar soap, daily, for a period of six or eight weeks; later the application is to be made less frequently. The scalp is to be rubbed for ten minutes, and then the soap-suds are removed by a stream of warm water. Following this the scalp is to be washed with cold water and dried with a towel, and a little of the following is used with friction:

R Hydrargyri bichloridi, 0.5 gramme;
 Aquæ destillatæ, 150 grammes;
 Glycerini,
 Spiritus odorati, ää 50 grammes.

M.

—*Ther. Gazette*, June, 1907.

TREATMENT OF UREMIA. Russell (*West London Medical Journal*, January, 1907) advances strong arguments in favor of the proposition that the cerebral manifestations of uremia are dependent upon cerebral anemia produced by an increase in intracerebral tension resulting from cerebral edema. He cites the excellent effects which have been reported as the result of lumbar puncture practiced for the relief of uremia. The promptitude with which the improvement has occurred after such a procedure has been such as to leave no doubt in the minds of observers that the relation was one of cause and effect. It is also noteworthy that in most of the cases the cerebrospinal fluid escaped under considerable pressure, though McVail states that in neither of his cases was this the case, the fluid merely dropping away. Russell believes that lumbar puncture should be performed in cases of uremia in which coma, convulsions, or really severe headaches are the dominant features, and that the presence of a high blood-pressure would be helpful as indicating the advisability of this procedure. He has no explanation to offer for the material improvement that sometimes undoubtedly follows venesection, since this by lowering the blood-pressure would act in opposition to the compensatory mechanism which maintains the cerebral circulation in the presence of the high intracranial tension, and so should be a harmful rather than a beneficial procedure. It is possible, however, that the benefit which sometimes follows its employment is due to the relief of the failing heart with right-sided distention.—*Ther. Gazette*, June, 1907.

THE TREATMENT OF HAEMOPTYSIS. P. S. Hichens (*The Practitioner*, March, 1907) discusses the treatment of hæmoptysis thus: The three chief indications are to give all possible rest to the lungs and heart, to lower the blood pressure and to increase the coagulability of the blood.

Rest to the lungs and heart is obtained by complete rest in bed, and by not allowing the patient to get up for any purpose unless he happens to be one of those patients who cannot pass a motion in bed without great agitation and difficulty. In such a case it may be best to allow him to get up quietly and slowly for the purpose. Another measure that will soothe the patient and give him bodily and mental rest, quieting the cough and relieving mental apprehensions, is morphia, given either by the mouth or under the skin.

In order to lower the blood pressure we may combine various measures.

(a) Posture will alter the effects of gravity and prevent passive congestion of the lung. The patient should not lie flat, but be well propped up with pillows or a bed-rest.

(b) Diet, a restricted diet, somewhat after the method of Tufnel's diet for aneurism, will help. The diet should be cool, given in small quantities at a time and with a diminution of liquids, and a small quantity of easily-digestible solids, such as minced meat, or minced chicken in the form of sandwiches. Thirst may be combated by allowing small pieces of ice to be sucked.

(c) Derivative medicines, which will carry away fluid from the blood and dilate the abdominal blood vessels. The most convenient for this purpose are mild saline purgatives.

A combination of magnesium and sodium phosphate is often sufficient, or if the patient is constipated by the morphia, which is so often necessary, a 5-gr. colocynth and hyoscyamus pill in addition will generally be enough.

(d) Vasodilators.—If we cannot stop bleeding from the lungs by vasoconstrictors, we can certainly influence the blood pressure in the lungs by vasodilators, either immediately and evanescently by inhalations of nitrite of amyl, or more gradually and continuously by glyceryl nitrate, or erythrol tetra-nitrate (gr. 1-10 to $\frac{1}{2}$).

The third indication to increase the coagulability of the blood may be accomplished by giving 15 to 20-grain doses of calcium chloride (or, better, calcium lactate) either three times a day or more frequently, such as four or six hourly. This must not be given for more than three or four days at a time, otherwise the effect will be the reverse, and the blood will become less coagulable.—*Ther. Gazette*, June, 1907.

THE PROPER METHOD OF DISINFECTING A ROOM. Albert calls attention to the lack of care that oftentimes characterizes the disinfection of rooms. He lays down the following brief rules as to the manner of carrying out a thorough disinfection of a room or house:

1. The person who disinfects should put on a cap and gown, and the face, at least the mouth and nose, should be covered with a piece of gauze. The cap, gown and gauze are later left in the room to be disinfected with the other objects.

2. All holes and cracks should be sealed by pasting over them pieces of paper or filling them with cotton or cloth.

3. Precautions under certain circumstances: (a) If the wall-paper of the room is badly torn in several places, it should be removed; (b) if, by accident, a rug or carpet should have remained in the room, it should be thrown over the back of a chair; (c) if the room has no door which it is desirable to open, one window should be left unlocked, to be thrown open when the fumigation is complete; (d) no vessels containing water should be left in the room.

4. The patient's clothing and the bed-clothing should be thrown over the ends of the bed, backs of chairs, or over a wire or rope stretched across the room.

5. Valuable books should be opened and placed on end, so that the leaves may be separated as much as possible.

6. Determine the temperature of the room and see that it is above 60°.
7. See that the room contains enough moisture in a vaporized state.
8. Potassium permanganate is placed in a vessel which has been slightly heated beforehand; to this the formaldehyde is added; 8½ ounces of the potassium permanganate and 20 ounces of the formaldehyde (40 per cent. formaldehyde) to every 1000 cubic feet of room space to be disinfected if penetration of mattresses, etc., is required. If only surface disinfection is desired no more than one-half of these volumes is necessary. If the formaldehyde is generated by a method which liberates all of the gas only 16 ounces are necessary. These volumes are much greater than those given by the manufacturer of most disinfectants. No doubt, also, the volumes given are somewhat greater than absolutely necessary in all instances. Nevertheless, the author thinks that in using disinfectants we ought to employ the same principles as financiers in estimating profits or expenses. They calculate closely just what they will be, and then allow a good margin against themselves for unforeseen circumstances. On account of the variability of strength of many preparations of 40 per cent. formaldehyde, we should be sure that we secure our solution from a reliable house.
9. Let the gas act for six to twelve hours, and open doors or windows. The placing or evaporation of a little ammonia in the room will neutralize the formaldehyde and thus hasten the disappearance of the odor of that substance.
10. All bedding, patient's clothing, etc., that is not harmed by boiling should next be boiled for one-half hour.
11. Wherever possible, the mattress, rugs, etc., should be steamed; the author believes that every large city should have a steam disinfector for this purpose. Where this is not possible, these articles should be taken outdoors and thoroughly aired and beaten. The person beating them should have a piece of gauze tied over his head, and preferably should also wear a suit which may be sterilized by boiling.
12. Paper, rags, cheap books, and other articles of little value should be burned.
13. In case it is not possible to obtain all of the favorable conditions for formaldehyde disinfection, or if there is any suspicion that there are still organisms that need to be killed, all of the woodwork, and if necessary the walls, should be washed with a liquid disinfectant, such as bichloride of mercury, 1:1000; carbolic acid, 5 per cent; or one of the various proprietary coal-tar preparations properly diluted.—*Journal Amer. Med. Assoc.*, Feb. 2, 1907.

TUBERCULOSIS AND SYPHILIS. The diagnosis between tuberculosis and syphilitic affections is often very difficult, and many cases are probably diagnosed as tuberculous which are really due to syphilis, or, more commonly, hereditary syphilis. The discovery of tubercle bacilli in a lesion does not exclude the syphilitic origin of that lesion. Hybrid lesions exist which are caused by the implantation of the tubercle bacillus in a syphilitic or heredo-syphilitic soil. Syphilitic heredity is a strong predisposing cause to tuberculosis, and many consumptives are recruited from the ranks of the hereditary syphilitics or from the offspring of syphilitic parents.

In all cases, careful examination should be made for signs of hereditary

syphilis, and this examination should not be limited to the search for "Hutchinson's teeth," cranial nodes, and signs of interstitial keratitis. There are many other signs of syphilitic heredity, as shown by the Fourniers, father and son. These signs include retardation of growth, dentition, speech, and walking (infantilism); malformations of all kinds, including hare-lip, cleft-palate, hydrocephalus and micro-cephalus, spina-bifida, club-foot, high arching of the palate, cranial deformities and malformations of the ears and eyes; malformations of the heart, genital organs; ichthyosis, etc. In all doubtful cases the therapeutic test should be applied, and a course of mixed treatment with mercury and iodide instituted for some time.—C. F. Marshall (*British Journal of Tuberculosis*, April, 1907).—*Monthly Encyclop. of Med.*, June, 1907.

HEMORRHOIDS, INJECTIONS OF CARBOLIC ACID IN THE TREATMENT OF. The author is of the opinion that this operation has a sphere of usefulness in the work of the general practitioner in dealing with selected cases in which there is no local contraindication and in which general anæsthesia is undesirable. He suggests the following modifications of the usual technique: the fluid injected is a 50 per cent. solution of carbolic acid in alcohol, but, before throwing it into the hæmorrhoid, this is rendered tense by the application of a wire snare around its base. The loop of the instrument is tightened gradually, so as to cause the tumor to become congested slowly, and the needle is plunged directly into the center of the mass, and several drops of the carbolic acid are injected. The snare is not removed until the entire mass has undergone thrombosis. Each tumor is treated in this way, and a local dressing of drying powder is applied. On the fourth day a dose of castor oil is given, and by the seventh or eighth day the necrotic tissue has usually sloughed off. Complete healing requires three to four weeks. The existence of deep fissures or large size of the hæmorrhoidal masses constitutes contraindications to the injection operation. The author lays especial stress on the use of the snare in order to produce congestion of the tumor and to restrict the amount of thrombosis, and on the employment of an alcoholic solution of the acid. Franck (*Deutsche medizinische Wochenschrift*, February 21, 1907; *Medical Record*, March 23, 1907).

THE TREATMENT OF CHRONIC GASTRITIS. R. F. Chase is of the opinion that chronic gastritis is a much less common disorder than is generally supposed. The diagnosis can only be positively made by examination of the stomach contents, as constipation, flatulence and the other clinical symptoms which are associated with it are by no means characteristic. Chase believes that most cases can be cured by the use of douches to keep the stomach free from mucous, care in diet and measures calculated to restore the secretion of hydrochloric acid. Starches are better digested in the stomach in this condition than are proteids, and bearing this point in mind and remembering that all thermal, mechanical irritants are to be avoided, we have the key to dietetics in this disease. He advises lavage twice a week, using 30 grains each of sodium chloride and sodium bicarbonate to a pint of water at 100° F. For the purpose of dissolving mucus and increasing the secretion, the author used from 10 to 15 grains of sodium chloride and sodium bicarbonate in a glass of warm water, to be taken

about fifteen minutes before meals. Pepsin and hydrochloric acid are not relied on by him as agents to increase the hydrochloric acid secretion. Vacations and out-of-door occupations are important aids.—*Journal American Medical Association*, April 20, 1907.

THE RELATIVE EFFICIENCY OF SILVER NITRATE, PROTARGOL AND ARGYROL. Butler has had the opportunity of treating several hundred cases of acute mucopurulent conjunctivitis each year at the British Ophthalmic Hospital, in Jerusalem. He has therefore had every facility for carrying out a comparative test of the value of nitrate of silver, protargol and argyrol in the treatment of this disease. In the experiments which Butler conducted a two per cent. solution of silver nitrate was employed on account of the cauterizing effect of the stronger solutions. Protargol and argyrol were both used in a 33 per cent. solution. All solutions were freely applied and the excess left in the eye.

The comparative tests, which were made in the summer of 1905, were carried out as follows: Cases were chosen in which the disease was in an early stage, and the two eyes nearly equally affected. One drug was applied to the right eye, another to the left, while the third was given for home use. The next day the eyes were inspected, and the differential treatment continued day by day until either one drug established a superiority or it was certain that both were having an equal effect. Many of the patients were never seen again; probably the first application cured the case.

Forty-two cases in which silver nitrate was tested against protargol were followed up to a complete cure. The results were as follows:

Protargol superior in 62 per cent. of the cases.

Silver nitrate superior in 10 per cent.

Equal results in 24 per cent.

In many of the cases in which protargol proved the better drug the difference was not great, but it was sufficient to demonstrate its superior therapeutic action.

In twenty-two completed cases, protargol was tested against argyrol with the following results:

Protargol proved superior in 50 per cent. of the cases.

Argyrol proved superior in 0.45 per cent. of the cases.

Even results in 49.55 per cent. of the cases.

Or in short, in half the cases the effect of the two drugs was the same, and in half argyrol proved to be inferior in therapeutic action to protargol.

In many of the cases in which protargol gave the best result, the difference in its favor was very pronounced; in some of them the "protargolized" eye recovered after two to three days of treatment, whereas there was still a discharge from the "argyrolized" eye at the end of a week. Some of these eyes at once recovered when protargol was substituted for argyrol. In four cases argyrol seemed to cause great irritation, a symptom which the author has never seen caused by silver nitrate or by protargol. After 22 comparative tests the inferiority of argyrol to protargol had become so marked that the tests were discontinued.

In 13 cases argyrol was tested against silver nitrate. In seven of them the effects were equal, in six argyrol showed a slight superiority.

During the past summer (1906) the author used protargol for several

hundred cases of acute mucopurulent conjunctivitis, and the results have, in his opinion, been decidedly better than he obtained with silver nitrate in former years.

His conclusions are that protargol is a more satisfactory agent than either argyrol or silver nitrate for the treatment of acute mucopurulent conjunctivitis, and that argyrol is better than silver nitrate. Protargol is perfectly safe up to 33 per cent., and may probably be used in even stronger solutions. Its application causes much less pain than silver nitrate, but more than argyrol. Silver nitrate in strong solutions is a very dangerous agent. It has unfortunately become the custom in Palestine to use 10 per cent. and even stronger solutions, with most lamentable effects. These results have been obtained in conjunctivitis caused by the Koch-Weeks bacillus, and do not in any way contradict the results obtained by others who have tested the colloid silver salts upon gonorrheal conjunctivitis. There are several cases in the summer epidemic in which the gonococcus is present in large numbers, but they almost invariably lead to the non-ulcerative cases upon investigation.—*Ophthalmoscope*, Jan., 1907; *Therap. Gaz.*, June, 1907.

TREATMENT OF ULCER OF THE CORNEA.—Stiren, in the June issue of the *Pennsylvania Medical Journal*, gives an excellent summary of the present methods of treating ulcer of the cornea. He states that the keynote in successfully treating ulcers of the cornea is to cleanse the conjunctival sac thoroughly, keep it as aseptic as possible and aid the cornea in its reparative efforts.

The first indication is met by flushing the conjunctival sac with liberal quantities of saturated boric acid solution, using an irrigating lid retractor which facilitates cleansing the retrotarsal fold and sulcus. All exposed conjunctiva should be gently wiped with pledgets of cotton while the eye is being irrigated and pressure should be made over the lachrymal sac repeatedly during the cleansing process. It is rarely necessary to cleanse the eye oftener than twice in twenty-four hours.

Keeping the conjunctival sac as aseptic as possible is accomplished by filling it and covering the lid with 1-3000 bichlorid of mercury ointment, prepared as suggested by Dr. White, of Richmond.

℞ Hydrargyri bichloridi	gr. I.
Sodii chloridi	grs. V.
Adeps lanæ hydrosi	q. s.
Petrolati	oz. VI.

The sodium chlorid and bichlorid are dissolved and rubbed up in about one dram of lanolin; the vaselin is boiled for five minutes, the impregnated lanolin added and, after boiling for five minutes longer, the liquid ointment is poured into jars. After it has cooled it will be found to be of a proper consistency to introduce under the lids, becoming slowly melted by the heat of the body and permeating to all parts of the conjunctival sac.

The third indication, aiding the cornea in its reparative process, is an all important one. The eye should be put at rest by closing it with a comfortable cotton dressing, thoroughly atropinizing it and keeping the patient quiet in a moderately darkened room. Greater resisting powers can be accorded the cornea, and more rapid healing of the ulcer induced,

by dusting a small quantity of dionin under the lower lid after the eye has been cleansed and before the bichlorid ointment has been introduced. As dionin is also an analgesic it has the added and distinct advantage of rendering the patient more comfortable. Moist heat applied to the lids is of undoubted benefit in aiding the cornea to throw off necrotic tissue and to assist in new cell growth. It is best applied with cotton pledgets moistened in hot sterile water or boracic solution for one half hour immediately preceding the cleansing of the eye.

Indolent ulcers and ulcers showing a tendency to spread are best treated with light applications of tincture of iodine. Besides the stimulating and antiseptic properties of this agent, the iodine it contains appears to exert its alterative action and aids the tissue by promoting new cell growth. When the ulcer was healed, the scar is less dense than when the stronger chemical agents have been used—carbolic acid, trichloroacetic acid and nitrate of silver—which I have discarded years ago for this reason.

A class of cases demanding special attention is ulceration of the cornea occurring in gonorrheal ophthalmia or in ophthalmia neonatorum. We have here a condition in which we can not bandage the eye and one in which it is impossible to attain even a moderate degree of cleanliness and asepsis of the conjunctival sac. In the newer silver salts, protargol, argyrol, etc., we have remedies which, while their efficiency as bactericidal agents is still a matter of debate, are of undoubted value as protective and cleansing agents in gonorrheal ophthalmia if the eye is kept immersed in them.

Much of the good resulting from the use of these remedies in gonorrheal ophthalmia is due, not so much to their powers as germicides, but to the fact that the strength in which they are commonly employed, being so much heavier than the secretions of the eye, they float out pus and secretions carrying innumerable bacteria which would otherwise remain in the crypts and folds of the conjunctiva and continue the infection indefinitely.

POTASSIUM CHLORATE IN EYE AFFECTIONS.—Koster, of Lyden, advocates the use of potassium chlorate in the treatment of diseases of the cornea and of the conjunctiva. Three per cent. solutions may be freely used in these cases, either by instillation, lotion, or local bath. To the healthy conjunctiva this causes no pain, but to the inflamed conjunctiva it causes a slight burning. When finely powdered potassium chlorate is used it only causes a moderate pain and has no injurious effect. It can be applied in all forms of conjunctivitis, but especially in the chronic catarrhal form; also when there are phlyctenulae. A case of marginal keratitis was completely cured in two weeks. This agent acts as a disinfectant and as an astringent.—*The Homœopath. Eye, Ear and Th. Jour.*

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RADIUM FOR TRACHOMA.—Dinger reports seven cures out of sixteen patients. The trachoma granules completely disappeared, but in three a conjunctivitis persisted which needed treatment with zinc sulphate. The younger the patient the quicker and more perfect the cure. The treatment with radium is quicker than with caustics and painless; the patients prefer it to the mechanical removal of the granules, because the latter is very painful and necessitates entrance into the hospital.—*The Homœop. Eye Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

THE ELECTRIC CURRENT IN EYE WORK.—The galvanic current has a two-fold action, physiological and physicochemical, as seen in electrolysis and cataphoresis. The first named action is manifested chiefly in its direct effect on the nervous system, while the more obscure biochemic action not only originates a decomposition of the water element of the solid and fluids of the body, but also transmits certain well known chemical agents from one pole to the other. The whole process is, therefore, a most complex one. The effect of polarity on the subjacent tissues covers the very essence of therapeutic action. The anode or positive pole is sedative in its action, and should, therefore, be applied to all inflammatory lesions, while per contra, the cathode or negative pole is stimulating, hence is beneficial for atrophy. In the eye the constant current yields the best results when there is a high electromotive force and a low amperage; sixty to seventy volts, controlled down to one-half of one milliampere. A higher amperage would require a lower voltage, as stronger currents, would be unbearably painful to the eye. If a battery is employed, about fifty or sixty cells would be needed to secure the required strength. If the street current is used a volt controller on the shunt principle is necessary, as well as a carbon rheostat to control the amperage. A milliamperemeter is essential, it should be arranged for lower readings, on a secondary scale, graduated from zero up to five Ma. In glaucoma the negative pole, galvanic electricity, will reduce the high tension and control the disease, while the positive pole will aggravate the symptoms. Reversal of the current may be not only painful but injurious, and might cause ultimate blindness. The high frequency current for the eye has been much exploited, but is still employed tentatively, and its therapeutic indications and applications are not sufficiently defined. Dr. Abadie, of Paris, who advocated its employment for a time, has reverted to the use of plain galvanism. Its therapeutic possibilities, however, are probably inherent and simply await scientific development.—*The Homœopath. Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

SKIN DISEASES AND THE BARBER.—Rollin H. Stevens, in the *Medical Counselor*, for June, writes a very timely article upon the barber and skin diseases, in which he contends that the barber is more than responsible for many dermatologic affections, through the means of his lack of the ordinary antiseptic precautions. He blames the barber with the dissemination of such diseases, as syphilis, tinea sycosis, sycosis vulgaris, alopecia areata, common baldness, acne, furunculosis, impetigo, epithelioma, lupus, etc. Rollin, advises, as a remedy for the existing evils in barber shops, the passage of State laws, regulating the fitness of barbers to follow their trade. Such laws now exist in Michigan, Wisconsin, Kentucky, Missouri, Minnesota, Connecticut and Washington. In New York, New Jersey, and California the laws have been repealed, and in the States in which the laws exist, attempts are made at every session of the legislature to have them likewise repealed. Rollin suggests that the boards of health should have the responsibility of the sanitation of the barber shops, and that the barber should have a general understanding of the nature and effects of skin infections.

RALPH BERNSTEIN.

THE PROPHYLAXIS AND TREATMENT OF POST-OPERATIVE PHLEBITIS.—Brothers (New York) says: Strictly speaking we cannot dissociate phlebitis and venous thrombosis. Both together constitute a clinical entity which we ordinarily understand as post-operative phlebitis. An injury to a vein is the most frequent direct cause of phlebitis; whereas the absorption of septic fluids from contiguous structures that are septic is the common indirect cause. He then quotes a number of authors whose views vary as to whether the vein is primarily affected or whether the stagnation of blood and the formation of thrombi is the initial lesion. He concludes that in certain cases, at least, blood retardation leads to coagulation, thrombosis and phlebitis; in a larger proportion of cases, an injury to the intima of a vessel or the accumulation of micro-organisms on its wall results in phlebitis with secondary clot formation and thrombosis. Clarke has recently assumed that, independent of micro-organisms, and in perfectly aseptic laparotomies, a post operative femoral phlebitis may result from backward extension from the deep epigastric vein of a clot resulting from violent traction of the wound edges in the course of operation. In the study of prophylaxis of post operative phlebitis we must regard sepsis and blood retardation. Regarding the frequency and importance of sepsis there can be no doubt. Next to sepsis comes the question of the importance of rest. In a suppurative case with a drained wound, rest in bed is unanimously advised. In aseptic cases, however, the preferable plan of procedure has not been definitely settled, either theoretically or as the result of numerous laboratory experiments. Practically and as an empirical method of procedure good results have followed the early movement of patients by several operators, and they have found that post operative phlebitis or thrombosis very seldom occurs. The author does not advocate urging patients to leave the bed in 12 or 24 hours after operation, but thinks that in the near future 80% of all abdominal sections will be ordered out of bed at the end of the first week.—*Amer. J. Obs.* Vol. 55, 609.

THEODORE J. GRAMM, M. D.

THE FUNCTION OF THE LYMPH GLANDS IN MALIGNANT DISEASES, ESPECIALLY CARCINOMA OF THE CERVIX UTERI.—Fromme (Halle) has endeavored to determine this question in a series of investigations of the material at the Halle Women's Clinic, with especial reference to protective and defensive processes of the organism, and which are effected mainly by the lymph glands. The variations of temperature have not received sufficient clinical attention. A large number of specimens have been studied microscopically and attention has been particularly directed to the giant cells in the lymph glands. His conclusions are as follows: In carcinoma of the cervix, as in every other malignant tumor, fever may arise. The fever must be explained by an infection of the lymph glands with virulent micro-organisms, which overcome the resistance of the glands and enter the blood. When the glands are weakened in vitality even less virulent micro-organisms may overcome the obstacles presented by the glands. Micro-organisms are also found without fever, in the glands when they lie in the lymph channels and may injure the surrounding tissue and ultimately cause necrosis in the glands. The micro-organisms have passed beyond the carcinoma by way of the lymph channels. They originate either from the ulcerating

carcinoma itself or may be inoculated from without from mechanical or chemical injuries of the carcinoma. In consequence of the bacterial invasion of the glands the formation of the granulation tissue and of connective tissue may be secondarily induced. The same may possibly be stimulated to grow by the products of tissue changes in the carcinoma or of the carcinoma plus the contained bacteria; in the same way may an ulcerating carcinoma itself cause the formation of connective tissue. The latter represents a healing process, inasmuch as the glands which are not yet carcinomatous may offer a greater resistance to the later advancing carcinoma. When the glands become infected the original new growth may gradually be destroyed by encapsulation of connective tissue. Thus arise the glands filled with white smeary masses. In the destruction of the products of tissue change in the lymph channels and glands the eosinophile leucocytes and giant cells play a large part. The giant cells have a further effect in the proliferation of the connective tissue, and may be regarded as reserve cells. The giant cells arise from the adventitia of the smaller vessels through the reception of basophilic granules; they appear to pass through the adenoid tissue and thus reach the lymph channels and the proliferating connective tissue. The local formation of the eosinophile leucocytes from myeloblasts and myelocytes in the adenoid tissue of the lymph glands may likewise be regarded as probable gland metastases from ulcerating carcinoma in consequence of attending bacteria toxins have a negative chemotactic influence upon the giant cells, while gland metastases from non-ulcerating carcinoma have a positive chemotactic affect upon the giant cells.—*Arch. f. Gyn.* bd. 791, 197.

THEODORE J. GRAMM, M. D.

THE TREATMENT OF PERNICIOUS VOMITING OF PREGNANCY.—Dr. R. C. Norris (Philadelphia) says this condition occurs about once in a thousand pregnancies, and when treated by drugs alone the mortality is about 50%. The enormous literature of the subject emphasizes the fact that there must be various etiological factors, and the etiology of a given case should be accurately determined. Abnormality of the pelvic organs should be first determined, but in the writer's experience, such lesions are unimportant, and the same statement is true of organic diseases of the gastrointestinal tract. The cases of reflex vomiting arising from abnormalities in the ovum, or from simple distention of an irritable uterus, are not to be diagnosed by any means known, but they do form a class and are only to be relieved by emptying the uterus. He thinks our present knowledge permits us to classify the cases as either neurotic or toxemic. It would simplify our treatment if we could differentiate between these two types, but this is difficult and sometimes impossible. He is not inclined to accept the theory of toxic material emanating from the corpus luteum or the ovary. Some cases are associated with a toxæmia of intestinal origin, and in some of them the lesions of acute yellow atrophy of the liver are found. He cites a case which convinced him that the proportion of ammonia nitrogen cannot be routinely and by itself relied upon to determine the necessity for terminating pregnancy in order to save the patient's life. Of drugs in the treatment the author used calomel, followed by an effervescent saline if possible. Sodium carbonate is used if the stomach con-

tents are very acid. If catarrhal condition exists nitrate of silver is used. He also uses a capsule containing cerium oxalate, cocaine and bismuth subnitrate. The most valuable single treatment consists of lavage of the colon with warm salt water. Little result has been had from rectal feeding. Suggestive therapeutics is paramount in neurotic cases and valuable in any case.—*Amer. Jr. Obs.* Vol. 50, 535.

THEODORE J. GRAMM, M. D.

THE PROTECTION OF THE INNOCENT.—H. A. Kelly (Baltimore) says if we can effectually protect the innocent, there will be no more transmission of venereal disease. The voluntary purity of one generation would forever break the link between past and future and gonorrhœa and syphilis would be abolished. What a stigma upon our race that, knowing this, we deliberately choose to have it otherwise, and, to gratify transient passions, we condemn millions of yet unborn lives to degradation, misery, and suffering. There is hardly any other grave question in medicine in which prevention is so palpably the one important issue, the *sine quo non* to mastery of the problem. There are three ways of protecting the innocent: (a) Restrictive legislation operating upon the guilty; (b) instruction of the innocent; (c) education of the innocent. The first impulse of protection is always to resort at once to more or less drastic restrictive legislation. This is the most inefficient of all means of controlling any form of social evil, inasmuch as it depends for its success upon the hearty co-operation of the great majority of the community, the very body of which constitutes the guilty party, and renders the legislation necessary. Legislation is therefore one of the last steps in the process of regulation, and one to be taken with circumspection and with the assurance that the force of a thoroughly awakened public conscience lies behind it. Instruction *per se* is only capable of touching the fringe of the subject, and carries with it none of that vital, germinating, self-propagating principle which is an essential of every real propaganda in the socio-moral realm. If instruction alone is adequate to correct an evil, why do so many doctors perfectly familiar with the consequences, become addicted to alcohol and drugs? The true fountain head of all moral reform is education, conducted at home, in the college, and in the Sunday School. All these agencies properly fulfilling their functions, co-operate in building up the character of the innocent, so that when the temptation comes there is the power to resist, and passion is controlled and crime is stifled in its genesis. The pre-eminent qualification of an educated man is that he loves righteousness and hates iniquity; if he lacks this mark he is still ignorant and has been educated only in name. It lies in the power of parents alone to correct this evil. If ninety per cent. of the fathers and mothers of our land were men and women who will care more for their children than they do for their pleasures, or their gold, solicitous for the spiritual as well as for the temporal welfare of their natural heirs, this gigantic problem will be solved in short order.—*Amer. Jr. Obs.* Vol. 55, 477.

THEODORE J. GRAMM, M. D.

SUDDEN DEATH DURING AND AFTER PARTURITION.—Godfrey (Denver) in writing on this subject reports the case of a woman, æt. 28, who during labor, suddenly developed pulmonary embolism. At first a quantity of

mucus collected in the throat which could be removed, but soon the respiration became rapid, the face cyanotic, and the patient showed every sign of impending death. Sibilant rales were heard in both sides of the chest, and the short respiratory efforts did not fill the lungs with air, while a frothy pinkish serum was expectorated. In six hours after the first symptoms, the patient died. The embolus may be an air globule or a clot of blood from the placental site. During severe uterine contractions a portion of the placenta is detached, allowing a small hemorrhage, and being confined, the blood coagulates. The severe contractions may cause the clots to enter the open mouthed uterine sinuses, and it quickly finds its way to the pulmonary vessels.—*Amer. Jr. Obs.* Vol. 55, 663.

THEODORE J. GRAMM, M. D.

THE ABUSE OF PURGATIVES.—An article offering considerable encouragement to those of us who are not entirely in accord with the old time methods of treating diseases, is that by Walker on the above named subject. This abuse is perhaps not quite so common as it was a few years ago, but most of us are aware that the indiscriminate use of cathartics is still entirely too prevalent. The author enlarges upon this point and goes on to say that the use of drugs has now and probably always will have an important place, but it is not our chief reliance, and as our knowledge advances, it will be of less importance. The laity should be educated to the idea that the prime object in consulting a physician is to obtain a diagnosis and to receive such directions of a mode of life as will best combat their trouble, and that the exhibition of drugs is of small importance compared to this. He says that Dr. Hammond, the Surgeon-General of the Army, in 1863, issued an order striking calomel from the list of supplies, because its use resulted in more harm than good. The author even projects the pointed query how many patients with chronic constipation get away from you without a prescription for some laxative, to be used when "necessary"—from which we might draw the inference that our friend also believes that such patients may be successfully treated without the use of cathartics. He says that we must take a stand against purgatives, just as we do against narcotics. They are not to be used except when indications are clear, and only under the direction of a physician. They are instruments of evil to be avoided by them as much as possible. From a review of the physiology of the intestinal canal the writer deduces arguments which appear to be conclusive. He mentions a number of medical authorities who are in accord with him, from which we are led to believe that he is in mighty good company, with reference to this matter. Even before and after surgical operations the advisability of severe catharsis is questioned, and in fact the writer expresses views agreeing entirely with those of the men doing the best surgical work to-day. On the whole there is a delightful air of conviction about this entire article which suggests that the author is speaking from experience, a pretty good teacher, to be sure. *Amer. Jr. Obs.* Vol. LIV, 722.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

NUX VOMICA always seems to be out of tune; inharmonious, seems to cover a great many of nux vomica conditions; for instance, he is usually out of tune with his family or attendants. The more he endeavors to do any mental work the more his mind gets befuddled, and causes his head to ache. This inharmonious action also involves the entire sympathetic nervous system and organs governed thereby, i. e., the bowels act spasmodically, the harmonious rhythmical action present in health is absent. Instead of propelling the intestinal contents onwards, often causes it to reverse its course into the stomach and followed by sour bitter eructations. That easy vomiting of ipecac and lobelia is absent, on the contrary, marked by persistent retching, yet not affording relief. The same spasmodic condition is present in the bowel movements, feels the necessity of an action but unsuccessful. This characteristic pervades, both the diarrhea and constipation of nux vomica. Several other remedies must be had in mind when a condition like this is encountered. Mercurious especially, and pulsatilla also in the inflammations of the colon, while the chief distinction is the changeableness in the color and appearance of the stools of pulsatilla, the latter is usually worse at night and wants the fresh air, while nux vomica is worse during the day and is chilled by fresh air and being uncovered. Mercurious perspires considerable and is not relieved thereby. Nux vomica belongs to the irritable class, shows an affection of the cerebro spinal and sympathetic nervous systems while mercurius centers on the vegetative sphere, organs of digestion, assimilation and metabolism.—*The Clinical Reporter*.

THE INTERNAL USE OF X-RAY.—By J. B. Campbell, M. D., Brooklyn, N. Y. It is ten years since the Brooklyn Hahnemannian Union, at the suggestion of Dr. Bernhardt Fincke, proved the X-ray. Many symptoms were elicited, some new, some old—very old indeed in the pathological history of the provers. Characteristics were developed which became of distinct value therapeutically.

One of these grand characteristics of X-ray is its stubbornness. We see this in burns from the ray itself; they refuse to heal. X-ray internally administered has the power to break up obstinate affections like psoriasis, and it profoundly affects certain morbid growths and complaints which are refractory because of deep miasmatic involvement. This latency the X-ray penetrates, and if it does not itself cure, it will often sharply indicate the remedy capable of finishing the work.

After taking X-ray the prover or patient will very often complain that he has caught a heavy cold. There will be copious coryza and lachrymation, the mucous membranes throughout the body becoming violently active. In two cases of gonorrhea where there was latency shown by a lack of prescribable symptoms, due doubtless to the patient's inability to override the sycotic miasm, X-ray not only developed all the features of the gonorrhea, but revealed the remedy (Merc. corr. in two or three instances) which promptly and permanently cured the gonorrhea and an old catarrhal deafness as well. In two other cases which had hung fire for months, the remedy brought about the development of numerous sycotic excrescences on the glans, the final remedy necessary was sharply indicated, and it cured absolutely. The physical and mental incubus which for months had made one patient's life a burden was removed immediately on the appearance of the growths, (condylomata had followed treatment by injections, and were dispersed by cauterization).

X-ray will resurrect old symptoms which many times become annoying on account of their bull-dog persistence. They have a mean habit of responding to the indicated remedy for a few hours or days, and then sneaking back to torment the prover.

The X-ray seems to have a close, though not always curative relation to inveterate gonorrhea and its remote ramifications, possibly because of its ability to "shake up" the miasm. Where the remedy acts as a palliative only, the cause of obstruction to the steady progression of the case may be in a drug disease or mixture of miasms. At any rate the case must be individualized with much care. . . . *The Medical Advance.*

THE MEDICINE CASE.—A physician in selecting the remedies for his medicine case considers: First, the capacity of the case; second, the time of the year; third, his geographical location; fourth, the distance to which he is likely to be called or, in other words, his accessibility to his office from any part of his territory.

The size of the case he governs by his sense of what is neat and ethical, as well as by what is convenient to handle. The geographical location of the practitioner refers to the part of the country in which he locates. It is evident that Florida, Michigan, Virginia and Colorado will each have its peculiar as well as the general ailments to be treated. In summer time the prevailing acute troubles are quite different from those of winter. If one is doing a circumscribed town or city business it is usually convenient to send from the office whatever unusual medicines may be called for without always carrying them about in a cumbersome satchel. The physician who drives some miles from his base of supplies, especially if it be in the country, should go amply equipped. A buggy case containing a hundred or more remedies is then required.

Nearly every physician who is engaged in general business has a small pocket case containing small phials that he carries, as he does his purse, everywhere he goes. It is a very useful part of his equipment, for, at any moment, even when he considers himself off duty, some one may be met accidentally who is in a faint or, from some house he may be passing, an emergency call may come. A twenty-four half-drachm bottle case is readily accommodated in the side pocket.

It is a frequent experience, of course, that one sees demands for something he does not have with him. This will happen even if he were to carry about with him an entire pharmacy. It is also true that a list of remedies that one prescriber might select would be changed by another. After a few months of experience the particular doctor learns pretty well what is likely to be demanded by his patients and corrects his outfit accordingly.

The beginner in practice is liable to order too large amounts of different things and thereby suffer loss. Ordinary tinctures and low dilutions will not preserve their full drug integrity much longer than a year or eighteen months. It is better to incur expense in replacing than to suffer disappointment from the administration of spoiled drugs.

All homœopathic preparations should be kept cool and in the dark. Direct sun light and heat changes them very quickly.

H. IN PHIALS.

COLCHICUM.—By C. M. Boger, M. D. All the melanthaceæ induce muscular relaxation, coldness and collapse; the prostration of colchicum is so great that even the head is moved with difficulty, the lower jaw drops, the arms hang down helpless, the body slides down in bed, and the breath comes cold and slowly; the face is pinched and cadaverous with a cold sweat on the forehead, the nostrils dry and black, and the tongue stiff and unmanageable; the mind is so befogged that the sufferer does not appreciate his danger, like the veratrum viride patient, he has no fear of death.

The gastro-intestinal symptoms are especially apt to be accompanied by nausea provoked by the smell of food or loathing at the thought or sight of it; tympanitis is often present, in fact, the abdominal inflation of colchicum is so marked that Bœnninghausen looked upon it as the main remedy for wind colic in cows.

It inflames the kidneys, causing bloody urine and albuminuria; the pains in the kidneys are relieved by lying on the back and drawing the legs up. Subsequently dropsy may occur in any part.

Sensations of coldness or burning predominate in the internal parts; sense of coldness in the stomach is very prominent. In the external parts tearing pains are in the ascendancy.

Like the other melanthaceæ it excites much sneezing.

It has the symptom, "One pupil contracted, the other dilated." *Rhododendron* has a very similar one.

Spigelia antidotes many of its effects.

We have for review then:

1. Very sensitive smell, the odor especially of food nauseates him. Hyperæsthesia of the special senses.
2. Pains which are severe, out of all proportion to their cause.
3. Paralytic symptoms accompanying the pain or from slight causes. Paralysis of the voluntary muscles.
4. Great physical relaxation and tympanites in dysentery, fevers, etc.
5. Very sensitive to cold; aggravation from checked sweats; in the autumn.—*Hom. Recorder.*

POTENTIZED VERSUS CRUDE DRUG.—W. H. Leonard, M. D., Minneapolis, Minn. We are dealing with life. It is itself a potency. The drug from which

we get the potency was a dynamic before it became the drug. Nature is friendly to us if we use her methods in an intelligent manner. We have the right to know these methods, and to use them to advantage in diseased conditions.

What can you do in traumatism with crude drugs? Absolutely nothing. A case to illustrate—Mrs. C., age fifty-five years, excellent health, caring for her household and family with great efficiency, became prostrated suddenly with frequent recurring headaches, faintings, and great weakness, a total wreck. Two or three physicians were non-plussed, the patient and friends discouraged. A homœopath came across the case and inquired into the cause. She had received a blow upon the head three years before, causing unconsciousness at the time. Here was a case of traumatism. A dose of *arnica*, 200, made a wonderful change. One dose of the same remedy a month later has made a well woman. Crude drugging did her harm. She would have fallen into some form of disease caused by the drugs in their effort to accomplish a result contrary to that indicated by nature, making nature her enemy instead of a friend. Nature is always our friend if we use her means in a legitimate way. We should keep to the front our observations on the traumatic cause of many conditions we find in our patients.

A gleaning from the proprietary medical literature of the day (these gleanings are the armamentarium of many physicians at the present time) this fact is stated—that a tumbler of lime water taken for a fortnight daily will cure warts. Now don't put this down in your note books. By referring to the proving of *calcarea carb.* you find the character of the warts the remedy will cure in potency without harm. It is not possible that you have to resort to lime water when milk disagrees with children. The right potency of the indicated drug does the work harmlessly, which might not be the result of drenching the stomach with lime water.—*The Clinique*.

MERCURIUS IN THE ARTS.—Lewis Pinkerton Crutcher, M. D., Kansas City, Mo. Special reference is made to the application of mercury in the realm of dentistry. Here we find it used as amalgam for cheap fillings in partially decayed teeth and also as a coloring medium in the plates of vulcanized rubber and with out the slightest doubt in either capacity we often find pronounced constitutional effects localized at some part of the body. Dentists; some dentists, tell us rather vehemently that this contention is preposterous since for reasons, mercury as found in these preparations is altogether insoluble, other dentists, are quite as emphatic in the affirmation of this contention believing as they do from observation that many distressing symptoms are directly traceable to this cause. In this phase of the consideration it might be as well to remember that after all it is a matter of mercury plus a marked susceptibility of the patient to that mercury. This enables us to understand just why some patients who wear mercury in the mouth in one form or another do not exhibit any effect whatsoever while in others apparently just as healthy, it begins very promptly to show its effects. The chief reasons held by the opposing dentists and others is that the amount of mercury used in the plates is not sufficient to produce a systemic effect and furthermore that in the vulcanizing process it is subjected to a heat of three hundred and twenty de-

grees (F) which in itself precludes possibility of drug effect. The matter of amount is answered by the degree of susceptibility of the victim, and the matter of heat is ridiculous since heat can not destroy the character of this substance. Of amalgam fillings they use the argument of "insolubility" stripped as it is of the defence thrown about the vulcanite. The red rubber plate understand, is treated with mercury for the sole purpose of giving it the color resembling that of the natural gum. The composition of the red plate rubber is caout-chouc (or rubber) 48 parts, sulphur 24 parts, vermilion or (bisulphuret of mercury) 36 parts. Dental amalgam is a combination of mercury with one or more of these metals (i. e.) tin, silver, zinc, copper, gold. Those dentists who recognize the deleterious effects of mercury as used in their art, are prompted in their conclusions by unmistakable evidences of this effect and their practical observation must be preferred to any passing theories based upon ignorance or prejudice or both.—*The Clinical Reporter.*

ANACARDIUM.

ANACARDIUM.—"Irresistible desire to curse and swear."—*Materia Medica.*

When on this life you've lost your grip,
Take Anacardium;
Don't let your ugly temper slip—
Try Anacardium.
When things don't work out on the square,
When you just ache to curse and swear,
Don't grit your teeth and tear your hair—
Take Anacardium.

When business runs down at the heel,
Take Anacardium;
When rivals do you up, don't squeal—
Try Anacardium.
Don't sit around and fret and mope,
Don't give your temper too much rope;
Remember, while there's life there's hope—
Take Anacardium.

When angry thoughts within you swell,
Try Anacardium;
Don't think the world has gone to—well,
Take Anacardium.
Don't let your ugly swear-words slide,
And risk your seat in heav'n beside;
Similia will save your hide—
Take Anacardium.

Harvey B. Dale, in *The American Physician.*

"CONTINUOUS APPLICATION OF RADIUM produces the most violent physiological effects upon animals as well as plants. Its application to the spinal

column and to the brain produces paralyzation which kills mice and even larger animals after a few days.

"In the emanations and their subsequent products we have at our disposal a means to introduce radioactive substances, although in considerable dilution, into organisms. As it has been proved that the emanations produce by far the largest part of the radiations given off by radium, it must naturally be surmised that the physiological effects of these emanations must be of great importance.

"As a matter of fact, the inhaling of larger quantities of emanations produces poisoning. Mice kept in an atmosphere containing larger quantities of emanations are killed after a few hours. Similar violent effects of the emanations were observed with larvæ and microbes. Whether this effect may be utilized in the form of an emanation therapy has still to be investigated. However, continuous inhaling of air moderately laden with emanations is not at all disadvantageous to the human system. The human system absorbs considerable quantities of the radioactive substance, part of which is excreted by the breath and part by the urine.—Prof. Marckwald, quoted by Hugo Lieber, N. Y., in the *Hom. Eye, Ear and Throat Jour.*

PUERPERAL ECLAMPSIA.—By Frank L. Newton, M. D., Boston, Mass. The first notable change is that of the blood and urine in the pregnant from that of the non-pregnant, which does not constitute a morbid, but a physiological condition, and yet similar changes in that respect in other organs in the absence of pregnancy might constitute pathology. Those changes found in organs as the liver, and the kidneys, temporarily present, in the latter especially, as manifested by albuminuria, which is so constant a symptom presented during the course of an attack, comprise the pathology. Hence, we believe, that a constant etiology is as yet not established, neither have pathological conditions been sufficiently constant for application in the diagnosis. But in the symptomatology there is sufficient constancy and agreement for average correctness in diagnosis to outline a plan of treatment which may be worthy acceptance. This, however, must be broad enough to cover all cases, and sufficiently comprehensive to permit of selections for individual cases. For each case needs to be treated as a unit and individualized for the application of treatment peculiar to its requirements.

As generally accepted views, from the foregoing we may conclude:

1. That the blood of the puerperal eclamptic is heavily loaded with highly toxic materials.
2. That the origin, source, and specific character of the toxic principles are as yet not known.
3. That their presence may often be discovered in the pregnant patient if carefully and cautiously watched.
4. That their elimination may be effected in many cases, if thoughtfully treated.
5. That, in the instance of an attack, the emptying of the uterus affords relief and rapid improvement and usually recovery; particularly when accomplished in the early stages of the attack.

Here is offered large opportunity for the application of the homœopathic

remedy by the homœopathic principle, which will, on general principle, give in return the best results in the hands of those most skilled in prescribing. But because of our loyalty to a principle, founded upon a law which we accept as true, and believing that when correctly applied in all particulars it is unerring in its effects, we are not recreant to our trust in the recognition of other laws found to be the natural laws, as those of physiology and chemistry.—*Jour. of Surgery, Gyn. and Obstetrics.*

OPIMUM.—Dr. Burney Yeo mentions the death of a young adult, suffering from typhoid fever, who was killed by the rectal injection of a dram of the tincture. Another fatal case is noted, caused by half a grain of the extract, given to relieve asthma in a case of chronic nephritis. In spite of these disasters, and of the terrible risk of inducing the morphia habit, Dr. Yeo recommends its use in a long series of acute and chronic disorders, from angina pectoris to the cure of a common cold, and in acute rheumatism as well as in spasmodic asthma and bronchitis, with, however, a caution in aged persons.—*The British Hom. Review.*

[It is very easy for the medical man to learn how opium should be used in the cure of cases to which it is in any way appropriate. An old book entitled "Materia Medica Pura," by Samuel Hahnemann, contains the complete information, which is perfectly sound and still up-to-date.]

NOT AN UNMIXED BLESSING.—To suggest in the presence of a modern educationalist that the kindergarten is not an unmixed blessing is almost rank heresy, yet it is probably true that many, if not the majority, of medical men have, at times, wished Froebel had never suggested the idea of teaching little children to make paper mats, sing pretty songs, and whatever else equally impractical may be attempted in the kindergarten. The young brain and the young body are rarely fit for the discipline that the kindergarten brings with it, and endure it at the cost of a strain whose effects are seen for many years, if not all through life. It is said, moreover, by some of the "old-fashioned," they must be "old-fashioned" if they do not favor the kindergarten, that the child who enters the primary grade at 7 years of age without a previous kindergarten experience, has proved to be more than the equal, in physical and mental capabilities, of the maker of mats, etc. And there is no sanctity in the number 7 in this connection, whatever may attach to it in other spheres. Not a few children entering school at 9 will accomplish more by the time they are 15 than the majority who become school children as soon as possible after the seventh birthday is passed. Children are tender plants and should not be forced. Oculists assert that defective eyesight among school children is on the increase. How much of it can be traced to the steady use of an immature organ during the years of kindergarten study, or play, which you please?—*N. A. J. of H.*

THE NOSODES OF CANCER.—Another lesson can be learned from the history of psorinum. Psorinum has its limits: it is not a specific for psora. So neither can any nosode be expected to cover all the ground of the disease it arises from. It was for this reason that Burnett found it advisable to provide himself with a large number of different preparations of cancer

and other nosodes, every one of which covered different areas in the outlying field, though all were centrally alike. To those preparations he gave different names, and I have been able in a slight way to find out their differences, though he left no written record of them. Indeed, he was in the investigation stage at the time of his lamented death. Had he lived he would doubtless have given the knowledge to the world; as it is, we must find it out for ourselves. And the way is not so difficult, since he has pointed it out. Thus, in building up a pathogenesis of any nosode, we have in the first place—

(1) Symptoms of the disease from which it originated.

Here, as in the case of other remedies, it is the peculiar, striking and characteristic symptoms which count the most. For instance, the general indication for syphilinum is the sunset to sunrise aggravation—which also, by the way, is a grand indication for mercurius and aurum, the leading antisiphilitics in the mineral world.

Next we have—

(2) The proving of the nosode in the potencies.

This is of a very high grade of importance, and one which Burnett would have been the very last to neglect. Burnett certainly proved the cancer nosodes in a fragmentary way on himself, but I am not aware of any records of these provings. The only symptom I know that they definitely produced in him was the deathly sinking sensation, after the kind produced by the anti-psorics, but not confined to any special hours of the day or night.

The disease-symptoms and the provings, either singly or combined, give us a starting-point for the use of these remedies in practice, and this brings me to the third most fruitful source of indications—

(3) Clinical experience.

Indications derived from clinical experience are of two kinds: (1) Cured symptoms; and (2) produced symptoms.

It is not everybody who is capable of observing these indications, for it requires acute vision, and an accurate conception of the action of the remedy in use—beyond that which the generality of practitioners possess. No one has surpassed Hahnemann in the acumen necessary for reaping this harvest; and though the fact that he did reap it constitutes his greatest sin in the eyes of some of his followers, with those who have gleaned in the same field it constitutes one of his highest claims to our gratitude.

This is one of the most important of our means of defining and enlarging the scope of these remedies; it is largely through this that our knowledge of the nosodes has been built up. Hering has taken full advantage of it in the schemata of the nosodes in his "Guiding Symptoms." He has collected from homœopathic literature the characteristic symptoms of cured cases. This method must not be confounded with a practice common among allopaths (and some homœopaths), who say, "I give so-and-so in such-and-such a disease because in my practice I find it does good." That is of no use to the genuine homœopath. That is treating the names of diseases; the homœopath wants to know the exact symptoms or conditions which disappeared under the action of a given remedy—which is an entirely different thing.—*Homœopathic World*, May 1, 1907.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

ELECTRICITY IN MEDICINE. By Dr. Guilleminot, of Paris. Dr. Osler, the famous physician, now in London, said that questions of massage, electric treatment, cold baths, &c., should be drilled into physicians and not left to the nurse; but I think to be drilled effectually, in electricity at least, one must have some knowledge, not only of static electricity, and the galvanic and Faradic currents, but the new-introduced forms of electrical energy, high frequency currents, sinusoidal currents, undulatory currents, and others whose therapeutic value has been abundantly proved. To these may be added the luminous and caloric radiations, the X-rays, and forms of radiations with every variety of wave length, from the slow vibrations of the Hertzian waves, up to high frequency currents, and the rapid oscillations of ultra-violet light.

In the preface of his work, which has been published in English by the New York Rebman Company, 1123 Broadway, Dr. Guilleminot asserts, that of all the subsidiary branches of medicine, medical electricity is the one which has made the greatest advances during the last few years. He further states that medical radiology, of which Röntgen radiology is but a branch, has considerably extended the domain of the medical electrician. "The use of the newer radiations cannot be dissociated from electrical practice, practically because these radiations are usually generated by some form of electrical apparatus, and theoretically because all transverse oscillations of the ether are in reality electrical phenomena. Maxwell's electromagnetic theory of light receives fresh confirmation every day.

"The medical electrician, therefore, must be as well acquainted with radiant electricity as with current electricity. His knowledge, however, must not end here. It is not enough to be an electrician and an expert operator. He must also be a master of physical biology. All vital processes are connected with electric phenomena—osmosis, alteration in surface tension, ionisation, the various chemico-physical processes connected with assimilation and catabolism, the functions of nutrition and cell motion, are all accompanied by the production of electricity. They are occasioned by differences of potential which may be demonstrated experimentally.

"If the progress of science finally enables us to master this force, which is the very essence of life, and to subjugate it, as steam has been subjugated to the service of mankind, we shall have ready to our hands the most potent curative agent ever imagined to modify the evolution and ameliorate the condition of living beings. Unfortunately we have not yet arrived at this stage. None the less is it important for us to study all the facts which demonstrate the production of electricity by living tissue. Quite recently a new group of phenomena has been discovered, which if they are con-

firmed by further investigation, will establish a new link between life and electricity. The newly discovered radiations of Blondlot and Charpentier add one more evidence of the fact that all perturbation of living tissue is accompanied by a difference of electrical potential, and creates around it a field of irradiation. Without anticipating discoveries still in a nebulous state, we may assert that medical electrology should embrace the study of animal electrogenesis which touches so nearly our very conception of life."

"The practitioner who endeavors to employ the various forms of electric energy without a knowledge of the laws which govern them, is but an artisan working by rule of thumb, incapable of improvement, and always liable to failure.

"Each year brings to us a long procession of new discoveries. Medical sciences cannot afford to await maturity before being formulated. As new materials accumulate in the laboratory, the whole of the raw material of past knowledge must be thrown into the furnace, and our scientific and medical theories must be recast. I present this work, therefore, as a synthesis of our knowledge concerning the different forms of electrical energy. It has been written under the powerful impulse of Prof. Bouchard, and of a school which has done good services in all branches of medicine.

"Professor Bouchard has ever insisted on the idea that medicine must tend more and more to take its place among the exact sciences. His observations have always been made '*chiffres en main*.' He is physicist, chemist and mathematician in turn. Hence has he ever welcomed with enthusiasm the advances of biological physics and medical electricity. It was in his laboratory that he foretold the part that X-rays would play in medicine, at a time when the X-ray was a mere object of curiosity. In a few months he demonstrated the wide role that radioscopy was destined to play in medicine. The diagnosis of pleurisy, tuberculosis, aneurism, and the influence of the Hertzian waves were studied at a very early period in the laboratory of the Hospital de la Charite.

"These researches were continued when Prof. Bouchard placed in my hands the direction of the laboratory. Some of my arrangements of apparatus have come into general use, such as my focus tube stand with indicator of incidence, and my high frequency spirals. Others, such as the ortho-diagraph and the radio-cinematograph, have given useful results in the study of the thoracic organs. It was in this laboratory, as long ago as 1860, that Prof. Bouchard did his work on the injurious effects of colored light of various wave lengths on the skin. Erythema pellagreux was identified as a solar erythema, and the '*coup de soleil*' was shown to be the effect of violent radiations of short period. Since then, whenever new facts or hypotheses have appeared, whether X-rays, high frequency currents, the radiations of Blondlot, or the radiation of radio-active substances, they have been received with enthusiasm, and subjected to a searching and critical examination."

This work, says its author, has been written with the dominant idea that medicine should draw as much assistance as possible from the accessory sciences, and more especially from physics. "The theoretical study of electrical energy in the first part of my book should not discourage the stu-

dent, nor should the study of physiological effects which I have treated in the second part. Both are the necessary prelude to the practice of electro-therapeutics.

"With a knowledge of the science of electricity, the medical electrician will have a sense of intellectual satisfaction accompanying each step of his career, and will be duly armed, so as to be able to apply his art with precision and to mark out for himself new paths for conquest. A mode of treatment which has given such unlooked for results in cancer—the most incurable of all maladies—may certainly expect further triumphs. There is much work to be done, and we may be certain that the future of electro-therapeutics reserves for us still further surprises, and for humanity still greater services."—*Guilleminot*.

RADIOTHERAPY. Cancer of the Breast, Operation, Relapse, and Cure by Radiotherapy. Miss N., 31 years old, without personal or hereditary antecedents, perceived at the end of March, 1903, the presence of a tumor of the right breast. On the 7th of May, of the same year, she consulted Dr. Maurice Guillot, who found a movable infiltrated growth of the mammary gland, with involvement of the maxillary ganglia. On the 16th of May, 1903, she was operated by Dr. Guillot, who sent fragments of the tumor to Dr. Legros for histological examination, with the result—epithelioma of the breast. When on the 17th of July, 1903, Dr. Guillot sent us his patient; this presented, on the middle part of the cicatrix, an ulceration with indurated base, discharging abundantly and bleeding readily, and surrounded by five small buds or granulations, two of them excoriated.

On the 17, 18 and 19 of July, she had, sittings of a quarter of an hour of radiotherapy with bobbins of 35 centimetres, 50 volts and 6 amperes, focus tube No. 6 placed in the radilimitator at 7 centimetres from the skin. The amount of H. absorbed=9 measurement of Holzknacht. 15 days later the patient stated that 2 days after the 3rd seance, the discharge from the wound had nearly ceased. At that time, the ulceration which formerly was of the size of a dollar, was reduced one-third. New series of irradiations; 3 sittings under the same conditions. A fortnight later, only a small ulceration, about the size of a quarter dollar remained but a slight erythema put back to a later date further applications. On the 5th of September, new series of 3 seances of irradiation of quarter of an hour's duration. On the 30th only a small pale-yellow patch remained, covering the seat of the old ulcer. A month later the scar was of a rosy color and without granulations. On the 20th of December the patient returned with the scar reopened. There was an ulcer the size of a large pea, which two irradiations of quarter of an hour, 2 consecutive days, completely healed it. After three years, this patient, examined every month, remains in a perfect state.—Dr. Mondain, *L'Art Medical*.

RADIOLOGY. The action of X-Rays upon the deep organs of the body. Resume by Dr. Foveau de Courmelles. The heart beats more rapidly (Leguy and Quewisset, 1897). The pulse is altered (Destot); visceral troubles are produced (Oudin, Barthelemy, Darier), the guinea-pigs become aspermatic (Albert-Schönberg), their canalicular epithelium is destroyed (F. Friebe), but the copulative power is retained (Fillo-Brown

and Alfred Osgood). Tilden Brown claims that proximity to the X-rays renders man sterile for a certain time. Bolesbas, treating a case of anal pruritus by perineal radiotherapy, found that previously existing spermatozoa disappeared for several months and did not return but gradually three months after the cessation of the treatment. Lapowski, has thus found, according to the duration of the X-rays action, azo-ospermia, oligospermia or necros-spermia. The ovaries of the doe rabbit become atrophied (L. Halberstaedter). While treating fibromas, the ovaries, like the tumor, become atrophied (Foveau de Courmelles). The testicles of the white rat retain the permeability of the excretory canals, but there is a plain cystologic and chemical transformation and reabsorption of the elements (Bergonie et Tribondeau); the same authorities have exposed on the microscope a drop of human semen, with glass plates or of the most permeable mica, and the spermatozoa have kept their mobility even after half an hour of exposure. The ingestion of thyroid substances or the exposure of the kidneys to the X-rays, first diminished, then increased the proportion between phosphoric acid and urea. The kidneys when exposed become affected (Buschke and Schmidt), sometimes hematuric. The retina is affected by the X-rays (A. Birch-Hirschfeld). The spleen of a guinea pig has been found small and brown in color. A healthy animal becomes leukopenic (Helber and Linser), the lymphocytes are particularly affected; the red corpuscles resist (Milchner and Mosse); these authorities have found that the bone-marrow is seriously altered. The exposed animals resist better to certain affections (Quadrone). Lecithin becomes toxic under the influence of X-rays (Werner, Hoffmann and Schultz). The albumin is modified, becomes more liquid, less coagulable (Bordier and Galimard). Many leukemias have been successfully treated (Senn, Bazzolo, Barjon, Cadet, Nogier, Schleip and Hildebrandt, Aubertin and Beaujard, Ledingham and McKerron, Lommel, Melland, Ch. Colombo. Colombo, of Rome, treated with the X-rays three cases of leukemia. At the beginning the disease grew worse, the number of red corpuscles diminished (in one of the cases from 2,780,000 to 2,500,000), the number of leucocytes increased (from 96,000 to 440,000, particularly the polynuclear, from 64,000 to 140,000; the mononuclear from 32,000 to 300,000) while the size of the spleen remained the same. It was at later sittings that a favorable change took (gradual increase of red corpuscles, decrease of leucocytes) place. The treatment comprised a total of 120 to 150 sittings, each sitting lasting about forty minutes, ten for the sternum, ten for the spleen, ten for the elbow, and ten for the knees. The initial excitation of the X-rays, phenomenon of short duration, is to increase the white corpuscles (Guerra, Schleip and Hildebrandt). Goitre (L. Gorl, Stegmann) exophthalmic goitre (Carl-Beck), hypertrophy of the prostate (Moszkowicz, Casabelli and Luraski, Moszkowicz and Stegmann), fibrous tumors (Foveau de Courmelles) anachlorhydria and hysterical anorexia (R. Lepine), neuralgia, (Williams, Leonard) and epilepsy (Branth, Dracy) have all yielded to the X-rays. This is a resume of the profound action of the X-rays.

In regard to the semi-superficial troubles brought by the X-rays, Prof. Gaucher, of Paris, has devoted one lesson to a case of radio-neuritis, with consecutive cutaneous trophic troubles (glossy skin, telangiectasia, papillomæ, epithelioma). It was the case of an electrician who, from an early

date made a specialty of the X-rays. At the end of a year of work, he felt the skin of his hands dry, but previous to this he could perceive better the approach of the focus tube, then the tactile sensibility commenced to diminish, and pains and cramps made their appearance. The nails became brittle and fell off, the back of the hands and the fingers were soon covered with small vascular dilatations, of disseminated talangiectasia, of small scabs, of true corneous papillomæ, principally at the points of friction. The dorsal face of the right index was sore and presented an ulceration which did not heal and became larger, the bottom was thick and budding with hard, infiltrated base; painful and bleeding readily. Death was the result.

The atrophic action of the X-rays upon the glands of the reproductive apparatus, notably (testicles and ovaries) is more and more proved by laboratory researches on animals (Albers-Schoenburg, Brown, Halbersdter, Bergonie, Tribondeau, and D Récamier). I had the opportunity, says Foveau de Courmelles, after a previous communication to the Academy of Sciences, on the diagnosis and therapeutics of certain fibromas by the X-ray, confirmed by Deutsch, of Munich, and by Bondet, of Lyon, to treat still a certain number of these tumors and of observing almost always the following symptoms: From the first sitting, of 5 minutes duration, with first grade intensity of current, 5 amperes, 110 volts, om. 25 sparkling equivalents 7 by radio-chronometer of Benoist, there was a sensation of contraction in the uterus and constriction of the tissues, which became accentuated with the repetition of seances and the diminution of the tumor. If painful symptoms existed they rapidly disappeared. As to hemorrhages, they rather increase at the beginning of the treatment, leaving after each period, increased or not from other causes, and the tumor giving way more and more. Then, little by little, the hemorrhages become less frequent and palliated. Patients suffering from fibroma with abundant hemorrhages every three weeks, see these losses of blood become soon rare, every 4, 5, 6, 7, 8, weeks progressively, then every 4, 5 or 6 months and finally disappear. As in the living one cannot judge of the state of an organ, but from the functional manifestations, this remoteness and diminution of the menstrual periods evidently indicate an atrophic regression of the ovaries. According to age, the atrophic state is reached after a variable number of X-rays sittings, lasting from 5 to 15 minutes, and also according to the cases and the manner in which the radiations are supported by the general condition. There should be no cutaneous reaction, thanks to the well applied aluminum plate, but sometimes there are fever and chills, which, of course, demand longer intervals between the seances. After 50 years of age, there is frequently, from the first periods following the applications, a diminution of the menses. Towards 40 years, I have only obtained this result after several months (5 to 6 months, of two weekly sittings) of treatment, in patients who would not allow to be operated, but the atrophic regression was always manifest. Before 40 years, to obtain this result longer time was still required (8 to 10 months). In about 30 patients, that I was able to follow and observe, varying from 33 to 35 years of age, the same phenomena were constant.

For cancer of the breast, against which the ablation of the ovaries has been extolled, I had the idea of making in three cases consecutive applications upon the galactophorous cancerous region and upon the abdominal

region. I have obtained better results by this method than by making direct application alone. Here menstruation became also scanty, and in one of these cases, the exposed skin and pilous system of the breast became blackened. In another case, which should have been operated, the pains disappeared at first, but returned again, and the histological examination only revealed fibrous tissue. It is probable that the return of the pain was due to the presence of inert foreign bodies still voluminous. The capillary ganglia were reduced, to minute millet-seeds, but very hard.

Finally, clinics confirm every day these experimental researches. The ovaries, the mammæ, and the lymphatic ganglia, contract and atrophy under the action of the X-rays. Moreover, the penetration of X-rays varies with the organs and seems to take place in an elective manner. Although I have only a well-comprobated case, I believe that to act properly we need the direct application of the rays. I have in my cabinet, which she never quits, a small Havana poodle. She expends her time near and about my tubes of activity, in the lower zone, and for the last six and a half years I have not noticed any alteration whatever in her bi-annual menstruations. The oblique rays have not, on the other hand, the dangers that some claim. The insuccess in certain fibromas (Laquerrière) prove also that the direct applications are not always efficient. The totality of positive facts demand imperatively that only physicians should apply the X-rays. In the Paris hospitals, however, the radiographers are not physicians. Dr. Foveau de Courmelles, *Le Progres Medical*.

NARCOSIS BY ELECTRICITY. The eminent Professor Leduc, of Nantes, France, has presented to the Academy of Medicine, a report of a series of successful experiments with a new form of narcosis, which he has discovered and which he thinks will eventually supersede narcosis by drugs. He calls it electro-narcosis, and he says that it excels all known methods of producing insensibility in that it has no injurious consequences whatever. The patient subjected to electro-narcosis lies motionless and totally insensible to pain and as long as the method is applied. The moment it is relaxed he recovers his senses in their full activity. There is no period of daze, no nausea, no exhaustion, no headache. On the contrary, so far as the effect of the narcotic is concerned, the subject feels rested and exhilarated. When a healthy man is subjected to the treatment he awakes with a general feeling of well being, such as results from a refreshing sleep. In the case of a patient undergoing a surgical operation it is expected that shock will be reduced. But this experiment has not yet been tried on a human subject. Up to date the Professor himself is the only man who has taken the electro-narcosis, with unqualified success. His experiments were made on dogs, rabbits and guinea pigs. He claims that no danger of death is involved in the use of his apparatus to produce simply the narcotic state, because the strength of the current can be absolutely confined within the safety limit.—*La Gaceta Medica*.

Dr. P. Jousset is against the practice of certain homœopathsists who prescribe single doses of high dilutions, at very long intervals, in chronic diseases. He asserts that the question of the dose remains yet open. Clinical observation alone, he says, can preside over the controversy. In fact,

clinics establish the following propositions: 1. There are incontestable proofs of the efficacy of infinitesimal doses according to similia. The practice of the best homœopathic physicians corroborates this proposition. 2. There are recorded, no less certain, cures by ponderable doses of medicines administered according to the law of similars. The treatment of syphilis and intermittent fever, as well as all the cases of tradition described by Hahnemann, under the name of homœopathic cures due to hazard, testify the truth of this assertion. 3. It is not possible to deny that certain diseases as pneumonia, pleurisy, diarrhœa, &c., can be cured by the indicated remedy and according to our system, whether this remedy is given in massive doses or in infinitesimal ones. A proof of the veracity of this proposition is that some physicians give always ponderable doses of bryonia, phosphorus and arsenic, while others, for equal cases, prescribe the same remedies at the 6c and above. 4. Nevertheless, there are averred cases where the attenuated and ponderable doses cannot replace each other. The treatment of intermittent fever and syphilis by attenuated doses brings about failure, while on the other hand, charcoal and lycopodium, given by homœopaths for the most serious and obstinate diseases, would not be efficacious unless given in high dilutions.—*L'Art Medical*.

E. FORNIAS, M. D.

JOYA HOMEOPATICA. Drs. Comet and Pinart, leading homœopathic physicians of Barcelona, the cradle of Spanish homœopathy, have recently published a manual of *Materia Medica*, which contains the physiological and clinical study of 657 remedies, and a repertory to facilitate or rather to render less difficult the study of this important branch of our school. The "*Joya Homeopatica*" is certainly a worthy competitor of Blackwood's "*Materia Medica and Therapeutics*," and at once reveals the pains taken in its preparation and the high competence of its authors.

E. FORNIAS, M. D.

DR. LEON VANNIER, of France, has been of late publishing some very interesting studies on *Materia Medica* (arnica, actea sac, lycop, ranunc, &c.). The arrangement he has adopted for the presentation of his work is excellent, and the student of materia medica will be highly benefitted by the perusal of these papers. The synthesis of the work of Dr. Vannier shows that he is a master of drug action and of drug application, and we, in America, will certainly look forward with pleasure to the continuance of such labors. So little is written in our days of practical value to the student of materia medica that it is, indeed, a satisfaction to find out there are still in the world, men who labor with the sole intention of imparting to others the knowledge they possess.

E. FORNIAS, M. D.

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CLINICAL VARIETIES AND COMPLICATIONS OF ERYSIPELAS.*

BY

FREDERICK M. DEARBORN, B. A., M. D., NEW YORK CITY.

Dermatologist to the Flower, Metropolitan, Hahnemann, Laura Franklin, Women's, St. Mary's, Jamaica and St. Gregory's Hospitals.

ONE of the common diseases of the skin, erysipelas, may be said to be an acute infection of the lymphatic spaces of the corium and sub-cutaneous tissue due to a specific streptococcus which is introduced through a break in the skin or mucous membrane, often microscopic in size. General symptoms of malaise, prostration and headache may precede for a few hours the appearance of a small, red, shiny, swollen and sharply defined spot at the point of infection, commonly upon the face. This lesion increases peripherally in one or more directions, is tender and appreciably hot to the touch, is elevated, obliterates the furrows of the skin and has a sharp line of demarcation. Itching, burning and stinging are felt in varying degrees, but peculiar as it may appear, the patient does not scratch. In a varying proportion of cases, a chill follows the prodromata and immediately precedes the sudden rise of temperature which is typical of the disease. In seventy-five per cent. of the cases the temperature does not exceed 103 degrees, but it may reach 106 degrees. For three to five days this maximum is main-

(*Read before the American Institute of Homœopathy and before the Yonkers Clinical Club, June, 1907.)

tained with daily remissions, and ends by crisis in the average uncomplicated case. Then peripheral extension ceases, heat, swelling and redness subside, and desquamation ensues. Vesicles, blebs and pustules may develop upon the affected area and drying, form crusts.

After these few remarks about the disease, as typically presented, it is my purpose to show by statistics the frequency of the commoner diagnostic points, of the clinical varieties and of the complications of erysipelas. During the past eighteen months there have been under my charge in four general and two children's hospitals and in private practice 369 cases of erysipelas. Fourteen of these cases died while being treated for the disease, giving a death rate of 3 7-10 per cent., and when you consider that with the exception of 24 cases these patients were among the poorest, dirtiest and worst fed that a large city can produce, you can believe my assertion that with proper care the percentage of cures should be large. Erysipelas is much more common among men than among women, as the figures 254 males to 115 females will attest. This is probably due to the smaller degree of immunity enjoyed by men in both work and play. That our foreign-born population, especially the class being received at the present time, and who have not learned to live like Americans, constitute the bulk of our charity cases in the large cities, is shown by the fact that only 78 out of 369 could claim birth in the United States. Russia, Ireland, Italy and Austria in the order named were the worst offenders, although fifteen nationalities were represented. There were only three negroes among the number.

It has long been asserted that erysipelas is a cold weather disease, and over two-thirds of my cases occurred between December and May. Likewise we are prone to say that this disease is especially fond of adults in their prime. The following data is of interest in this respect:

	Cases.
Under 10 years of age.....	2
Between 10 and 20.....	35
“ 20 and 40.....	181
“ 40 and 50.....	83
“ 50 and 60.....	45
Beyond 60	23

I have stated that the common location of this disease is

upon the face and no less than 287 cases out of 369 could claim that location. This means that these cases did not spread beyond the face proper, not even to the scalp or neck. Of the 82 cases on portions of the body other than the face, 13 belonged to that clinical type called erysipelas migrans or ambulans, which progressively involves large areas of the body, even to the extent of covering nearly the entire surface; 48 cases involved one or both legs; the remainder were distributed over the arms, chest, neck, head, abdomen, shoulders, feet, hands, ears and penis.

Of the grand total of 369, 13 cases were post-operative, the point of infection being the seat of the surgical wound. Three followed excisions of corns; one, excision of cervical glands; one, excision of axillary glands; one, operation for umbilical hernia; two, laparotomies; three, radical mastoid operations; one, curettage of epitheleoma, and one, bone curettage.

In reporting cases of the recurrent or chronic type, you must rely in a great measure upon such history as the patient can give. Eleven cases reported having had previous attacks; besides these I observed two attacks in eight cases, three attacks in three cases, and in one case, four attacks. The location of the disease in any one patient in the course of a number of attacks remained the same, and there seemed to be no rule as regards the severity or length of the attacks because in half the cases attacks other than the initial ones were the more severe.

The so-called erythematous erysipelas is the mildest form without vesiculation, and with little desquamation. Almost all mild cases can be so classed. The hemorrhagic variety is extremely rare, and denotes a severe disorganization of the system. There were no such cases among the list tabulated.

So-called elephantiasis is due to repeated attacks, causing permanent enlargement of some dependent portion of the body; four of my cases involving the legs showed this condition and are classed as recurrent cases. A case of sporadic elephantiasis which may be seen occasionally in any skin clinic might readily be due to recurrent erysipelas.

Concerning the complications of erysipelas, it is my purpose to cite the number of each variety in the total of 369 cases and to briefly give the effect of each condition. For convenience these diseases may be divided into three groups: those antedating and in most cases predisposing to the erysipelas, those

developing during erysipelas, and those which are direct result of the erysipelas.

In the first group, those diseases whose prior existence was the means of infection, I may mention syphilis in two cases, eczema in three, ecthyma in one, scabies in ten, furunculosis in four and epithelioma in one case. The open lesions of these diseases were the breaks in the skin whereby the streptococcus gained entrance. In all but the syphilis the pre-existing disease was much benefited by the appearance of the erysipelas, and in some instances cured, as was notably shown by the epithelioma of eight years' duration. The same result has been reported in cases of sarcoma, carcinoma, facial neuralgia and in a limited sense of the mental status of the insane.

Alcoholism is the greatest single predisposing condition. I have records of about fifty cases in which erysipelas developed while partially or wholly inebriated; fourteen of these were enjoying delirium tremens when admitted to my service, and two died as the direct result of the alcoholism. These cases invariably show more pus and greater traumatic features, which seriously interfere with any treatment of the erysipelas per se.

Nephritis, which was present in many cases, senility in four cases, tuberculosis in six cases, valvular heart disease, gout and rheumatism in an appreciable number of cases, all existing before the onset of the erysipelas, tended to aggravate the condition, render its treatment less satisfactory and caused no less than seven of the fourteen deaths recorded. Two of these cases were admitted comatose and died within forty-eight hours.

Of the second class, those diseases occurring during the active process of the erysipelas, pneumonia claimed six cases with one death, meningitis two, with one death, and septicæmia three, with three deaths.

Among the third group or those following the erysipelas, suppurative cellulitis is by far the most common, occurring in a majority of the alcoholic cases because the abrasions in these cases are usually extensive and pronounced, and in about half of the post-operative attacks. Furunculosis is of rarer occurrence, and may follow the two types just mentioned or appear in apparently uncomplicated and simple cases. Alopecia areata of the temporary type follows nearly all cases of erysipelas of the scalp, and occasionally cases involving other hairy parts.

Convalescence is usually quiet and uneventful, because the average case of erysipelas is essentially acute and not of a general nature. I know of no disease dreaded by the public and the profession which need cause so little fear, or demand so little attention during recovery as erysipelas.

In conclusion, I believe it safe to say that these statistics bear out the truth of many of the diagnostic points of the disease.

1. As to its acute onset and course. The recurrent or chronic type being present in only 23 out of 369 cases.

2. As to its prevalence in adult life, 264 out of 369 cases occurring between the ages of 20 and 50.

3. As to its preponderance among the male element, in a proportion of more than two to one.

4. As to its appearance in cold weather.

5. As to its common occurrence among those whose habits or living render them less immune.

6. As to its location upon the face in 287 out of 369 cases, and its limitation in most instances to this portion of the body.

7. As to its low death rate, even when the poorest specimens of the human species are concerned.

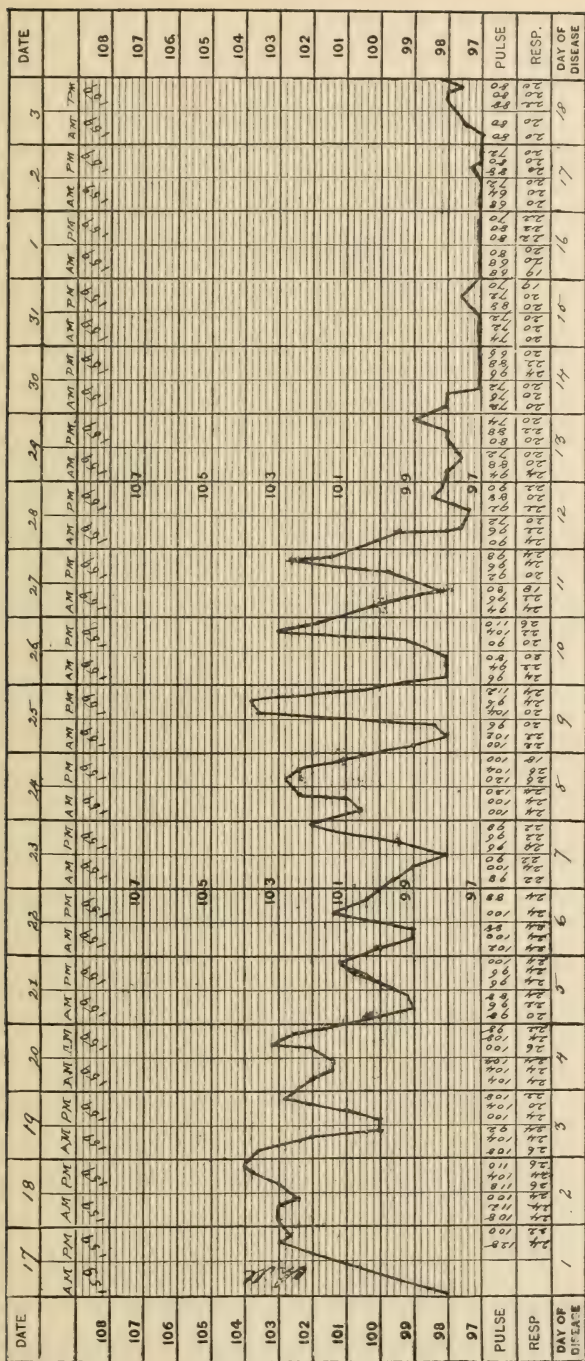
8. As to the comparative paucity of complications or rarer clinical types, and the small number of post-operative cases.

9. As to the uneventful, rapid and complete convalescence.

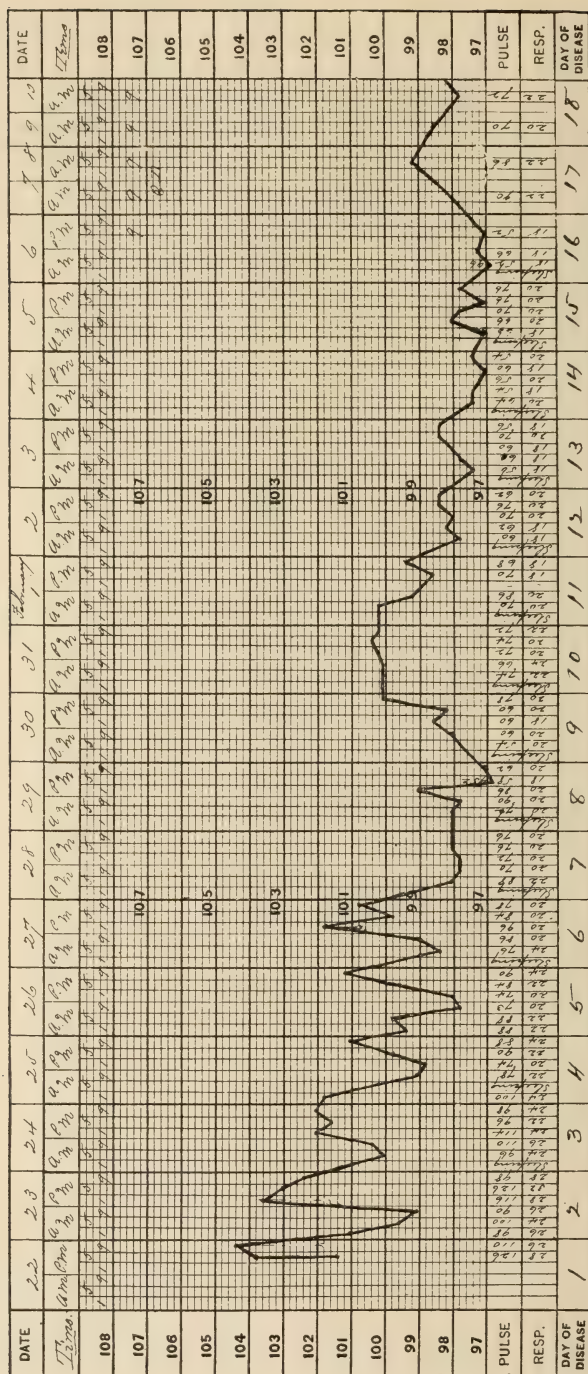
NOTE.—Charts illustrating the various forms and complications of erysipelas will be found on the following pages.

DATE	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	DATE
Time	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
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PULSE	96	114	112	104	96	100	104	98	94	92	94	98	100	96	94	90	88	84	80	76	72	70
RESP.	22	24	24	28	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	20
DAY OF DISEASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	DAY OF DISEASE

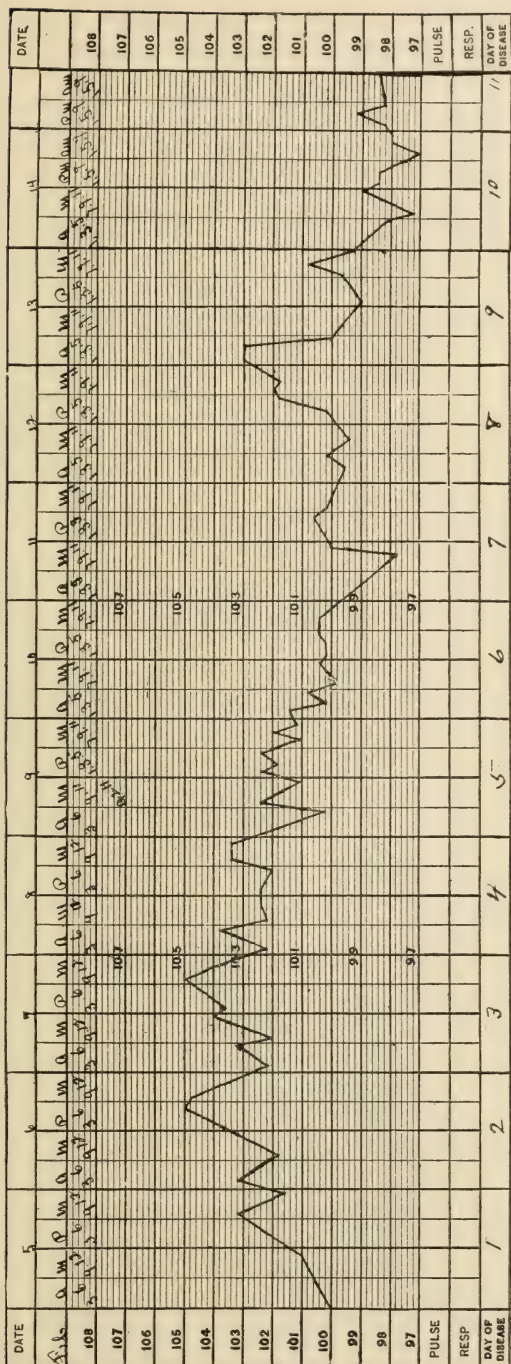




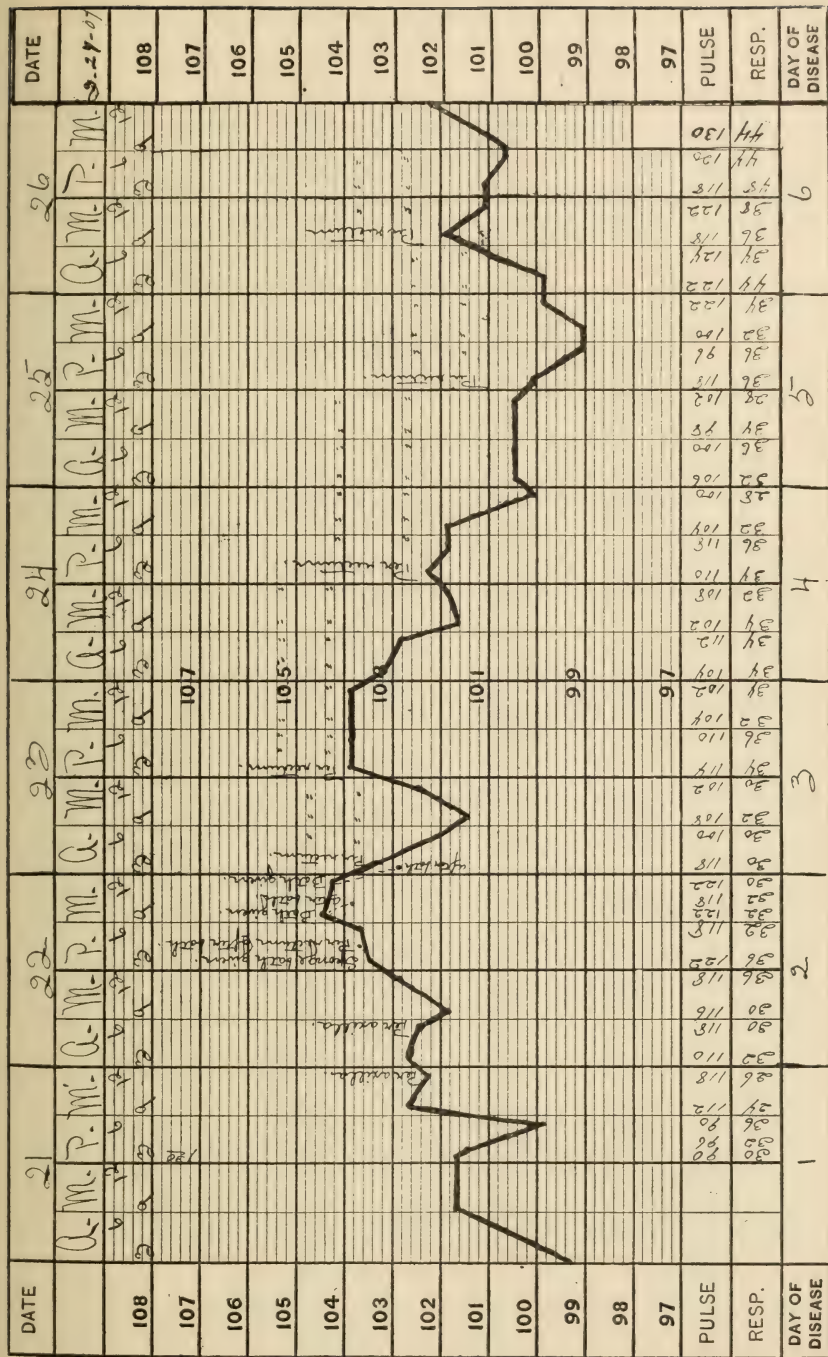
No. 2. TEMPERATURE CHART OF SEVERE FACIAL ERYSIPELAS. CRISIS ON 12TH DAY, FOLLOWED BY PROLONGED SUBNORMAL PERIOD. PATIENT, ENGLISH WOMAN, AGE 26 YEARS.



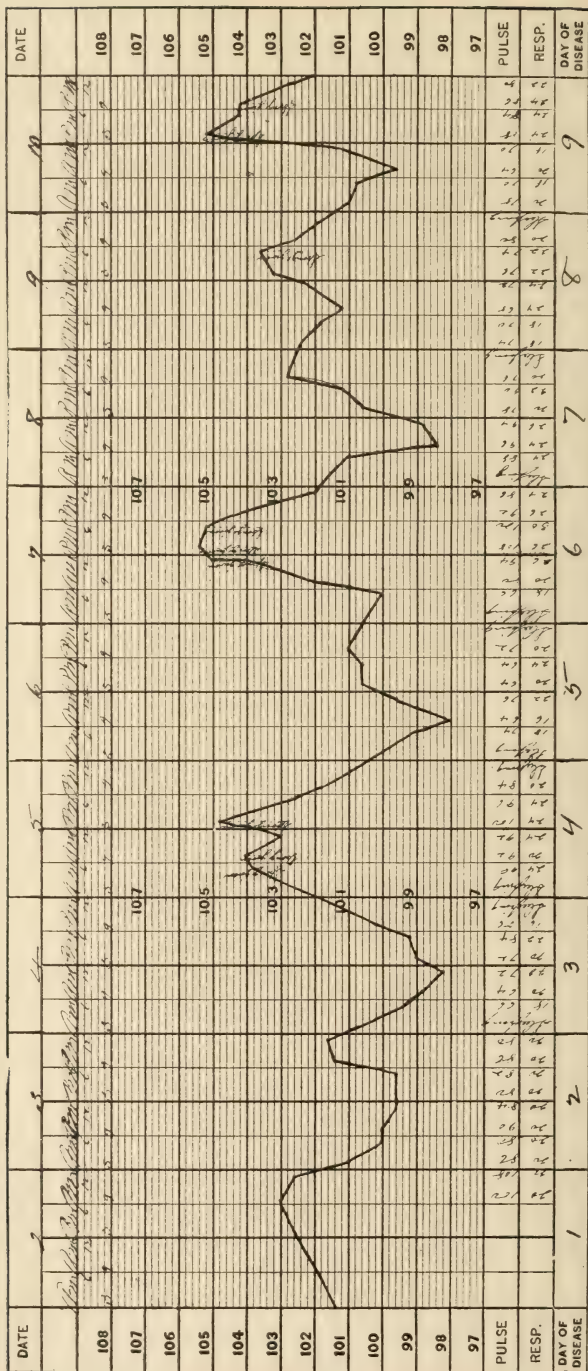
No. 3. TEMPERATURE CHART OF FACIAL ERYSIPELAS WITH CRISIS ON 7TH DAY. THE SUBSEQUENT RISE OF TEMPERATURE WAS DUE TO AN OBSTRUCTION OF THE BOWELS. PATIENT, IRISH WOMAN, AGE 36 YEARS.



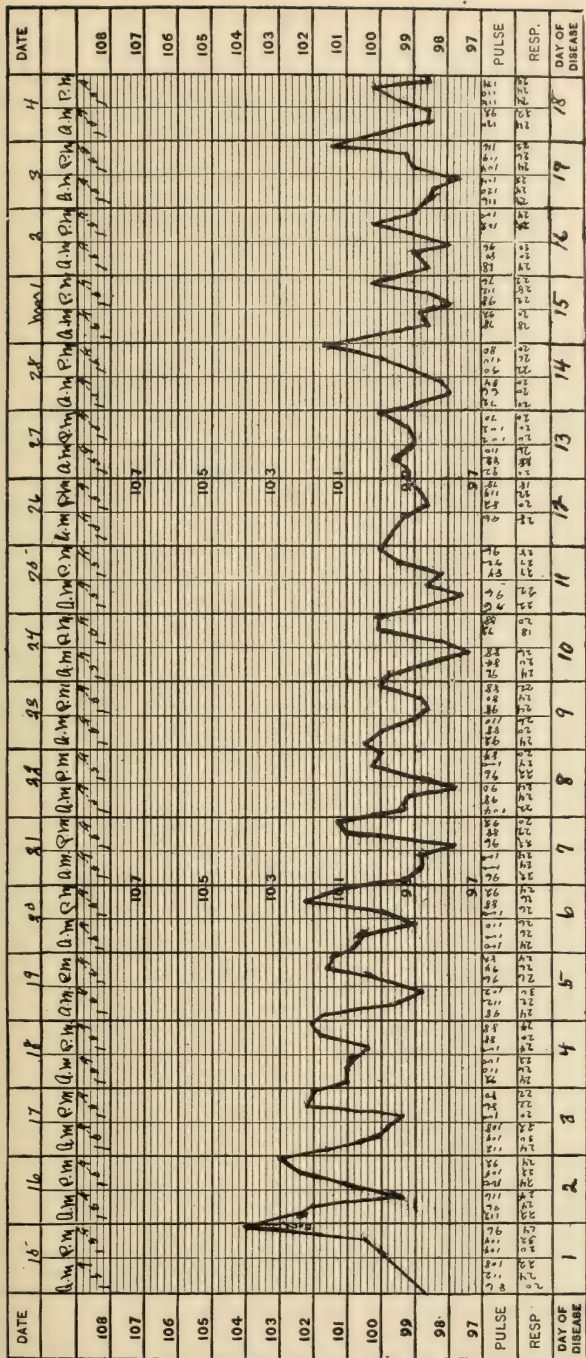
No. 4. TEMPERATURE CHART OF FACIAL ERYSIPELAS, SHOWING THE FALL BY LYSIS AND A SECOND RAPIDLY RECURRENT ATTACK. PATIENT, IRISH WOMAN, AGE 32 YEARS.



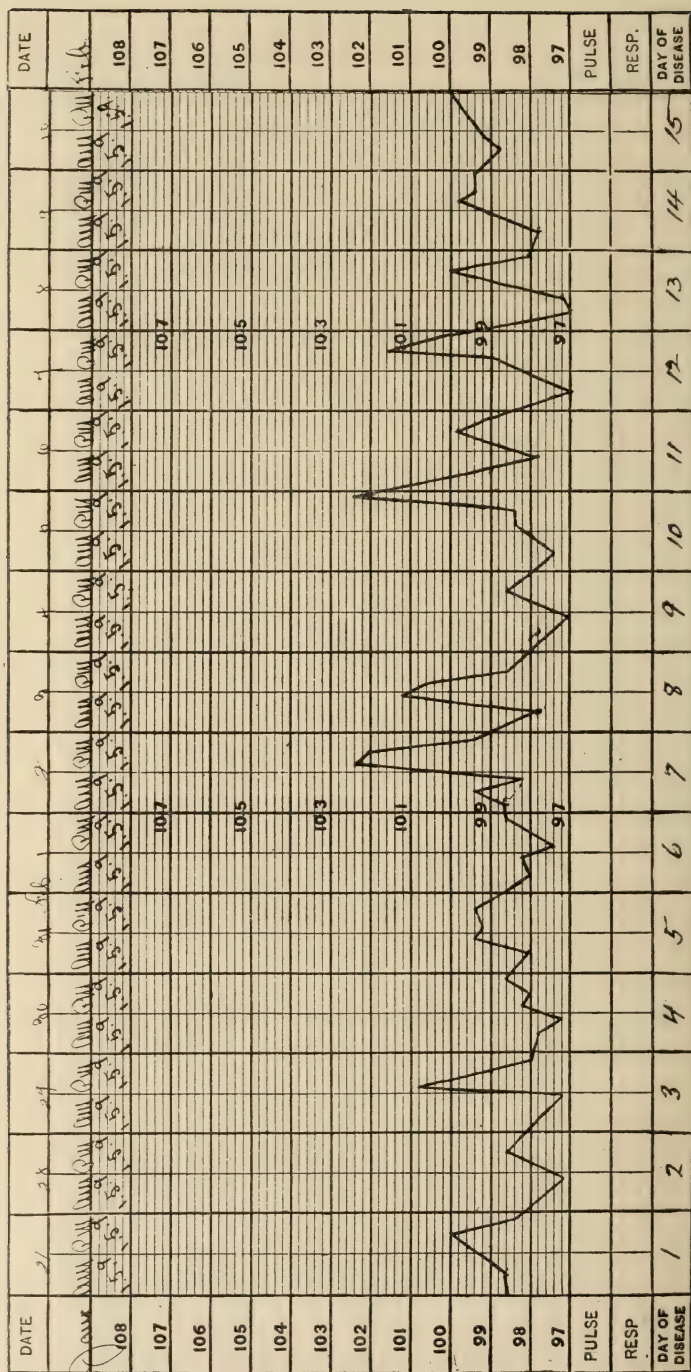
No. 6. TEMPERATURE CHART OF FACIAL ERYSIPELAS IN AN ALCOHOLIC PATIENT WHO DIED OF NEPHRITIS ON THE 6TH DAY AFTER THE ERYSIPELAS HAD SUBSIDED. PATIENT, IRISHMAN, AGE 55 YEARS.



No. 9. TEMPERATURE CHART OF ERYSIPELAS OF THE HEAD, COMPLICATED BY A PRONOUNCED CELLULITIS. PATIENT, A SCOTSMAN, AGE 28 YEARS.



No. 10. TEMPERATURE CHART OF Erysipelas of One Leg and Thigh with Pronounced Cellulitis. Patient, Irishman, Age, 30 Years.



No. 11. TEMPERATURE CHART OF FACIAL ERYSIPELAS, COMPLICATED BY MALARIA. PATIENT, AMERICAN WOMAN, AGE, 47 YEARS.

SCHEME FOR THE STUDY OF SULPHUR.

BY

EDUARDO FORNIAS, M. D., PHILADELPHIA, PA.

- (1.) *Role of Sulphur in the Organism.*
Organogenesis. Cells. Transformation. Elimination.
- (2.) *General Action of Sulphur as a Drug.*
Living cell. Circulation. Nervous reaction. Psora.
- (3.) *Special Action of Sulphur.*
Nervous System (Mind. Sensation. Motion. Sleep.)
Vegetative System. Nutrition and Secretion. Digestion.
Circulation. Respiration. Calorification. Reproduction.
Histogenesis.
- (4.) *Therapeutic Application of Sulphur.*
Nervous troubles. Lack of reaction. *Diseases of Nutrition.*
Digestive, Circulatory and Respiratory troubles. *Tissue*
changes. Dermatoses. Fevers. Diseases of the male and
female organs.
- (5.) *Relationship and Comparisons with other Remedies.*
- (6.) *Literature of Sulphur.*

(I.) ROLE OF SULPHUR IN THE ORGANISM.

SULPHUR, like CARBON and PHOSPHORUS, is an organogenetic element, found both in organisms and in inorganic bodies, and also, like CARBON and PHOSPHORUS, enters into the most diverse and complicated combinations with other elements. It contributes with one or two per cent., to the formation of the most important of all substances, the *albuminoids*, at the head of which is the *living plasma*. Other biological elements with which it becomes often associated are: *Potassium, calcium, natrium, magnesium and ferrum*. Like other mineral substances, it is derived from our food, which although of a complex composition, when first taken, suffers a relative simplification after digestion. For instance, we find the *albumins* where the cells show themselves most greedy, the *carbo-hydrates* accumulated in the liver to be given out progressively, and the *fat* deposited in the ganglia and connective tissue.

The role of *Sulphur* in the economy is not only constitutive

and constructive, but preservatory and prophylactic. As an element, however, it does not become readily fixed, and its presence seems to be more constant in the fluids than in the solids of the body. SULPHUR, either as a *sulphate* or *sulphite*, is commonly found in the egg, in proteid substances, in the epithelium, in the hair, in the saliva, in the bile, in the pancreatic juice, in the stools and in the urine, but most frequently at the gates of excretion. Sulphur when not forming part of organic combinations is not very assimilable and remains circulating without being fixed, producing injurious compounds, that finally are eliminated by the stools, the urine and the skin. Advanced Biology claims, these combinations of alimentary products to be reparative compounds, spare elements, origin of force, dynamogenetic materials or constitutive substances; but notwithstanding this, the mineral substances introduced with our food are placed by Bouchard in the first rank of toxic matters contained in the organism. No less poisonous, perhaps, are the products of physiological secretions and the alkaloidal poisons derived from the transformation of albuminoid substances into peptones, but, in relation to SULPHUR, none more interesting than those toxic substances resulting from intestinal putrefactions. "Without doubt," says Bouchard, "the stools eliminate the greatest part of these poisons which are expelled by them, but, nevertheless, owing to the slow movement of the intestinal contents, the mucous membranes absorb a certain amount of them." "We find, in the close relationship of our tissues, other poisons which are the result of the life of the cells. They pass out into the extracellular fluid, along with which they enter the lymphatics and blood-vessels. It is, therefore, into the blood that all the poisons are carried;—the whole of those that are made by the tissues, and part of those which are formed in the digestive tube. Theoretically we cannot conceive how it could be otherwise." Direct demonstration of it has been realized of late in a more complete manner than before. "After ligature of the colon, Planner found H^2S in the blood of the portal vein. Carter has there met with *indigo* in animals the subjects of intestinal derangements. I have seen, like Gautier, says Bouchard, alkaloids not only in the tissues, but in the blood." Indirect demonstration will be given if we find in the products of excretion those poisons which we have observed in the tissues and in the intestinal canal; and, if it is proved that these poisons are eliminated by organs in which

they are not formed, the logical conclusion will be that the blood is the necessary medium between the seat of the formation of these poisons and their place of elimination. But the poisons which exist in the tissues and in the intestinal canal are also found in the urine, either naturally or modified by oxydation, or united to nitrogenous or *sulphur radicals*: oxalic acid, in the state of oxaluric acid; *phenic acid*, in the state of compound *sulphophenic acid*, or *phenyl-sulphurous*; bodies of the aromatic series,—*indol*, *phenol*, *skatol*; butyric acid, as in the stomach; lactic acid, as in the stomach and first part of the intestine; and acetic acid, as it is formed under certain pathological influences, in considerable quantity in the whole length of the intestinal canal.

“The part played by the intestinal emunctory in the elimination of certain poisonous substances is attested by the commonly *fetid stools* of persons who frequent the postmortem table. Their fetid character recalls the putrid odor of the emanation from the cadavera.” “I have known medical men and students who could not attend an autopsy in the postmortem theater of an infirmary, without suffering from diarrhœa. (Thos. Oliver).” Sometimes this emunction is defective, for, if the largest part of the toxic material is thus expelled, yet some is absorbed there is a defective circle for certain molecules of poison.” We find in the intestines *toxic substances* arising from the disassimilation of such organic matter as *taurocholic and glycocholic acids*, or their derivatives, cholic and cholatic acids and dyslysin, a body formed by the liver, and afterward transformed in the intestine. We find *mineral salts* formed out of bile or secreted by the intestinal glands themselves. The intestine also contains gases which are not all formed there; there are individuals in whom, in a very short time, an excessive tympanitis is developed. In such cases certain gases are probably secreted by the digestive canal or formed there, H^2S for instance. I do not know what they are, nor even whether they are analogous to those which bring about fermentation. Neither do I know to what extent they are poisonous.

Bouchard also speaks of *salutary diarrhœas*, evacuations by means of which toxic material is expelled from the system; of *cutaneous elimination*, stating that *copious perspiration* may be useful in certain *intoxications*, not because they eliminate the poisons themselves, but probably because they expel from the

organism the abnormal products which it has formed under the influence of the poisons. All this is certainly very interesting to us, especially in connection with the synthetic demonstration of SULPHUR, as an organogenetic element. Let those who consider insignificant and even ridiculous some of those smaller shades of pathogenetic expression, recorded in our *Materia Medica*, look into the new medical researches and learn to understand what it has not been in their power to appreciate.

Putrid odor emanating from the body of a scrofulous child or from patients suffering from deep-seated suppurative process, is not a chimera, but the necessary results of destructive metabolism or impaired nutrition. It is the expression of both, systemic decomposition and putrid intoxication, that has led to the successful employment of SULPHUR and PSORINUM in morbid states of denutrition, known under the generic term of *Psora* or *Scrofula*.

Bouchard asserts that in many putrid intoxications in individuals who are the subjects of deep-seated, foul ulcers or sores, the odor of the skin recalls that of their suppurations. "*What enables us (he says) to understand the useful part played by perspiration in the cure of these morbid states is the odor which the skin assumes under the influence of certain disorders of nutrition.*" When nutrition is deranged by depressing influences acting through the intermediary of the nervous system, we may be warned of its being so by the odor.

Among hypochondriacs—the alienated, living in absolute inactivity, and with defective alimentation—*fatty acids* are eliminated more abundantly by the skin. From this arises the odor special to the places inhabited by men forced to this kind of life,—the odors of asylums, of prisons, barracks,—odors which differ one from the other. So marked is the odor that, since it clings to newly-washed clothes, laundresses can name the patients to whom the clothes belong by their peculiar smell. The negro seems to eliminate more fatty acids than the white man, and probably this explains why SULPHUR and PSORINUM act so well with that class of patients. The peculiar odors of variola, scurvy and diphtheria are too well known and there is no need here to refer to them.

"There is in existence an experimental demonstration of the part which the cutaneous emunctory plays in the elimination of toxic substances. We know that the varnishing of the skin of animals produces a marked fall in the heat of the body. Is this

the result of failure of the cutaneous respiration? It is hardly probable. Is it due to the action of the varnish upon the nerve terminations? Why, this reflex action is much less than faradization, the application of cold or of heat; besides, what these forms of irritation of the tissues determine is albuminuria, not hæmaturia, convulsions, and reduced temperature. What is special to the varnishing is perhaps the retention of poisonous substances which the skin ought to eliminate." (Bouchard.)

SULPHUR is widely distributed in inorganic nature as *sulphates* of the alkalies and alkaline earths. It enters the vegetable organisms in this form, and takes part in the building up of the proteid molecule, in which it amounts to about 0.3 to 2 per cent. of the weight. It is chiefly taken by the animal organism in the form of *proteid*, and is excreted for the most part in the highest oxidized condition as *sulphuric acid*, derived from the splitting up and oxidation of the *proteid molecule*. In this form, united to alkalies, it is again ready to repeat the cycle of life (Bunge).

The process of oxidation is rather more complicated when *sulphur* is present. SULPHUR, like IRON, acts as a carrier of oxygen. If decomposing organic substances meet simultaneously with oxids of *iron* and *sulphates*, *e. g.*, *gypsum*, not only is the oxygen of the oxids completely taken up, but that also of the sulphuric acid, *sulphide* of *iron* being formed. The latter, in the presence of air, may again be oxidized to *sulphuric acid* and *ferric oxid*, and then again act as an oxidizing agent. The *sulphur* required for the formation of *sulphid* of *iron* after the reduction of ferric oxid. may be yielded by decomposing organic matter itself, since this always contains *proteid* and consequently *sulphur*. In fact, the *organic sulphur-compounds* have themselves been formed in plants by the reduction of *sulphates* (Bunge).

If we examine the gases of the blood and respiration, we find that the absorption of *oxygen* and the excretion of *carbonic acid* take place among the lower animals, over the whole surface of the body, while among the higher animals, principally or exclusively in differentiated organs, such as the lungs, gills, and tracheæ. This process is termed external, as distinguished from internal, respiration, which last term Bunge applies to the consumption of *oxygen* and the formation of *carbonic acid* in the tissues. "A few authors understand by this latter term, however, only the physical process of the interchange of gases

through the walls of the blood-capillaries (the diffusion of CO_2 from the tissues, and of O from the blood into the tissues), and not the chemical processes of oxidation, of the assimilation of oxygen and the formation of carbonic acid in the tissue cells. Venous blood is rendered arterial by the process of external respiration; arterial blood venous by that of internal respiration."

As the *skin and the lungs* are also tissues requiring oxygen for the performance of their functions, the process of internal respiration goes on at the same time along with the external respiration—the latter preponderating in the lungs. For this reason, asserts Bunge, the pulmonary vein carries arterial blood to the heart. The former process preponderates in the skin of most animals, and the blood contained in the cutaneous veins is therefore venous.

The latest analyses (Hüfner) show that the molecular proportions between *oxygen* and *hemoglobin*, stand—2 or 3 atoms of *O*. to 1 atom of *Iron*. "The figures given, so far, only demonstrate that there is at least four times as much *oxygen* taken up in the transition of *hemoglobin* into *oxyhemoglobin*, as there is in the transition from *suboxide* to *oxid of iron*, or from *ferrocyanid* to *ferricyanid of potassium*. Possibly the *Sulphur* of the hemoglobin also plays a part in the loose oxygen compound, and a similar part may be assigned to the *sulphur atoms* in all proteids. It is noteworthy, says Bunge again, that, according to previous analyses, the animals that require more *oxygen* have likewise more *sulphur* in their hemoglobin. Four atoms of *sulphur* in the hemoglobin of the horse, six in that of the dog, and nine in that of the hen, go to two atoms of *iron*." Is this an accidental correspondence?

The *skin and the lungs*, next to the kidneys, are also the channels through which noxious material must be expelled from the body to maintain healthy function, and with this knowledge on hand we can well enter into the study of *mineral-debris-elimination*. That *SULPHUR*, like the other organogenic elements after supplying or feeding the cells which demand it, must be excreted as *mineral debris*, in some form or other, is undeniable. But no less positive is the fact that, when *SULPHUR* is applied to any living organism, either low or higher, it seems to be taken up by the protoplasm and then to combine with *hydrogen* or with *oxygen*, and yield the products of its union, H_2S or SO_2 ; metamorphoses of fatty acid, which do

not only escape from the kidneys, bowels, and lungs, but from the skin (Charrin).

Charrin ("Poisons de l'Organisme") also remarks that a part of the humoral poisons is derived not only from our food, but principally from the mineral combinations. But, before these combinations are formed, the food must undergo digestive metamorphosis, must lose part of its energy and leave in its tract the products of disintegration and waste, which, if health is to be maintained, eventually must be thrown off by the process of excretion. Theoretically as well as practically, these compounds possess morbid attributes which recent researches have brought to light; and notwithstanding their variety, our food, after undergoing the necessary changes and losing part of its energy, is transformed into fat, sugar and albumin. After penetrating the membrane of the cells, incorporate themselves, and become the vital molecule, they undergo other new changes. Even their acidity is modified. For a mineral element like SULPHUR, then to do its work properly, it should not be retained or arrested in or about the cell, it should keep on moving with other organogenic elements, enriching the plasma and aiding histogenesis. It is as a part of *proteid matter* that SULPHUR replaces the molecules, which day after day, we may say, after months of existence in the interior of the cells, leaves these very cells. With other proteid parts or portions, it remains moving, does not become fixed and is a constituent of the circulating albumin. Finally it becomes readily destroyed, but without delivering force, and is finally expelled by the kidneys, in the form of *sulphates* or as *indican*.

Among the many products found in the digestive canal, the *alkaline sulphates* are very important, and like the *chlorides* and *phosphates*, their origin is not only alimentary, but they are derived from the intestine itself or from its annexes (Charrin).

We know that SULPHUR enters into the composition of *proteids* in various forms and proportions and histologists have been long in the track of *crystalline-proteids*, but I could not penetrate too deep the subject without extending my work to unnecessary limits. It suffices to say that *proteids*, in which SULPHUR is always present, are indispensable, cannot be replaced by any other nutrient material and resemble one another in being composed of the same five elements, in propor-

tions of weight not very remote from each other, (*carbon, hydrogen, nitrogen, sulphur, oxygen*).

A product of the putrefaction of the *proteids*, found in the urine, is *indican* or *indoxyl sulphuric acid*, that is, a derivative of *indoxyl*, which in turn is an oxidation product of *indol*. This decomposition occurs in the intestines normally, but is more pronounced in digestive disturbances with diminished peristalsis (*intestinal obstruction*). *Indican* may also be found under some circumstances in various other parts of the body, from suppurative processes (*Sahli*). Of its clinical significance otherwise, I shall speak later on while dealing with other combinations of *sulphur* excreted by the kidneys.

One of the most important combinations of SULPHUR that takes place in the *digestive canal*, and chiefly in the *intestine*, is *sulphurated hydrogen* (H^2S). It is a compound of *Sulphur* and *hydrogen*, which by the way is also produced in the urine under the influence of certain bacteria. *Hydric sulphide*, *hydro-sulphuric acid*, and *sulphurated hydrogen* are synonymous terms. This colorless, transparent gas, has an unpleasant odor resembling that of rotten eggs, and it is soluble in water to which it imparts acid properties. When inhaled, even largely diluted with air it is a narcotic poison. No human being can live in an atmosphere containing more than one per cent. Birds die in air containing 1-1500 of it, and dogs in one containing 1-800 (*Faraday*). Upon the *hemoglobin of the blood*, its action is principally a reducing one, and prevents this fluid from absorbing oxygen, although probably does not combine with it (*Wurtz*). It is almost constantly present in sewer-gas and privy vaults, either free or combined with *Ammonium* or *Ammonium sulphohydrate*. The entrance into sewers, when the gas is highly concentrated, is followed by instant death if not rescued in time. In such cases, besides pure air, oxygen and brandy water should be administered at once. *Chlorine water* or a mixture of *potassium chlorate* and dilute *hydrochloric acid*, may be given internally. *Chronic poisoning* by this gas is attended by those febrile symptoms, with malaise and debility, usually present in the states of imperfect reaction in which SULPHUR has proved beneficial.

Sulphurated hydrogen (H^2S), as stated above, is found both in the *stomach and intestines*, by the decomposition of albuminous material, especially when there is any impediment to digestion, or to the onward movement of their contents. It

may also occur during pus-formation, and in the urine and bladder. It is, however, most commonly present in the *intestines*, and when it occurs in the *stomach*, we should suspect a *pñlegmonous lesion*, or *cancerous ulceration*. In the *hematic debris of the liver*, besides hemoglobin, iron and potassa, we find again SULPHUR. H^2S has also been detected in the *pancreatic juice*, and is one of the forms in which SULPHUR is excreted, but it may also be eliminated as *sulphides*. Our opponents use H^2S internally in the form of natural *mineral water* to treat rheumatism, gout, and certain skin diseases. It certainly destroys lice, and Ringer and others claim that this gas is the efficient insecticide in destroying the *developed itch insect*, by the conversion of SULPHUR. The disagreeable *eructations* of *sulphurated hydrogen gas*, are due to the partial decomposition of the *sulphides* by the acids they encounter in the stomach. *Sulphurated hydrogen*, again, from its great volatility, escapes in some measure by the lungs, just as it does by the skin, and occasionally with the milk, and with the urine; but there is not the least doubt that most of the SULPHUR taken into the stomach escapes with the *fæces*, while part of that which enters the blood, becoming oxidized, appears in the urine as a *sulphate*, or one of the lower *oxides of sulphur*. A fact worth remembering is, that during starvation the *nitrogen* and total *sulphur* run together in the urine in the proportion of 17.3 N: 1 S (Lusk).

As stated at the beginning of this paper, we detect with other *aromatic elements of the feces*, three which are the source of the *sulphurous compounds* found in the urine—*indol*, *phenol*, and *skatol*. I have also stated that as *indican* is a derivative of *indoxyl*, so is *indoxyl* in turn an oxidation product of *indol*. It is by sulpho-conjugation, that *indoxyl sulphate of sodium and potassium* are formed, and when found in the urine indicate great putrefactive changes in the intestines.

The production of *phenol* in the intestine may appear strange but it is a fact. By its antiseptic properties this toxic substance must moderate the activity of microbial fermentation. It is an example of that general law, which ordains that all living substances, with especial functions, must produce matters capable of intoxicating them (Charrin). *Phenol* like *indol* is absorbed by the intestine, and in the organism they undergo analogous changes; with other words, they sulpho-conjugate themselves.

Phenyl, an univalent radical of *phenol*, combines with H^2SO^4 to form *phenyl-sulphuric acid*. Both *phenyl-sulphuric acid* and *indoxyl sulphate* are eliminated by the kidneys. Charrin claims that their amount is in direct proportion with the intensity of bacterial putrefaction. The variations in the elimination of these two substances, as shown by Brieger and Morax, are not always parallel; according to the agents of putridity, one or the other predominates. We can appreciate, approximately, the amount of *Indican* by the blue violet-shade the urine takes when heated with H. Cl.; a very distinct reaction in diseases with extreme intestinal fermentation. To appreciate the activity of the putrefactive process Haagen prefers the *Kyaniric acid*. At any rate, an increased amount of *Indican* in the urine is of some diagnostic importance in helping to locate the seat of an intestinal obstruction. "Experience has shown that an *obstruction in the small intestines* is quickly followed by a marked increase in the amount of *indican* in the urine, as contrasted with an *obstruction in the large bowel*, where there is very rarely any such increase, unless perhaps in the later stages." If the duct of the pancreas is occluded, the amount of *indican* in the urine will be diminished. However, as the *indican* in the urine is normally quite small in amount, or even absent altogether, a diminution can be clinically significant of an *occlusion of the pancreatic duct* only under conditions which would ordinarily favor the production of a large amount of *indican*—*e. g.* jaundice and a meat diet. In *peritoneal affections*, particularly *perityphilitis*, any increase in the amount of *indican* suggests an increase of trouble; any diminution, an improvement in the condition" (Sahli).

Skatol is a strong-smelling crystalline substance (C^9H^9N) produced by the decomposition of proteids in the intestines. Its oxidation product is called *Skatoxyl*, which when combined with *Sulphur* forms the *skatoxyl sulphuric acid*, found also in the urine in certain diseases of the large intestines. It is toxic like *indol* and *phenol*. Red indol and *skatol pigments* have been detected in the urine by *Rosenbach's reaction*. The test has a diagnostic importance similar to that of the *Indican reaction*. *Indican*, or *potassium indoxyl sulphate* is, as we all know, easily decomposed by oxidizing agents into indigo blue and acid potassium sulphate, but we should bear in mind that when *indican* occurs in increased amount, it may sometimes give the urine a bluish or bluish black color, if it has been de-

composed in the urinary passage and changed into indigo blue, but very often, says Vierordt, we do not recognize that the urine contains more *indican*, because *indigo* has not yet been formed. "Hence, when there is a suspicion of *indican*; or if we wish to make use of its possible presence for the purpose of diagnosis, even when the urine appears to be perfectly normal, we must examine it with reference to this substance."

By the preceding descriptions, we see then, that the *Sulphates* exist in the urine in two forms—viz., *inorganic sulphates* and *sulphates of organic radicals*. The inorganic sulphates are probably *potassium* and *sodium salts*, while the organic sulphates or ethereal salts, are probably *salts of phenyl sulphuric acid, indoxyl sulphuric acid, skatoxyl sulphuric acid*, and allied *sulphates*. The inorganic salts are ten times more plentiful than the ethereal salts. Among the inorganic elements of the normal urine we find the *sulphate of calcium* (gypsum) naturally calcined. It appears in the sediment in cut-obliquely fine prisms and fine needles, which are dissolved in H. Cl. and acetic acid. The *sulphates*, like the *chlorides*, are always in solution. Besides the sulphates other *sulphur containing substances* exist, notably *cystin*, a crystalline principle ($C^3H^6N SO^2$) which forms a soft variety of *urinary calculus*, called *cystic calculus*. *Cystin* occurs rarely as a deposit, but when it does, it is pathognomonic of a peculiar metabolic anomaly. It usually separates from an acid urine within the urinary passages in characteristic hexagonal plate-like, colorless crystals which are readily soluble in ammonia. The urine which contains much *cystin* is generally clear, and undergoes a rapid alkaline fermentation by evolving *sulphurated hydrogen*. Uric acid also separates in similar crystals, although quite exceptionally; hence *cystin* and *uric acid* may be confounded (Sahli). *Cystinuria* may exist as a disease *per se*, but the assertion as to its relation with biliary disorder, according to Spillman, is a pure hypothesis, based on the presence of *sulphur* both in the molecule of *cystin* and *taurin*. Recent investigations, however, seem to show that it is probably due to some peculiar *intestinal mycosis*, because *cystin* and *diamins* are also found in the intestinal contents.

Although the total amount of *sulphuric acid* eliminated is as yet of no particular clinical importance, the amount of the *combined sulphuric acid*—i. e., sulphuric acid united with organic

substances—*e. g.*, *phenol*, *indol*, etc.— to form the so-called *ethereal sulphates* is of much greater interest. The normal daily excretion of *total sulphates* in the adult amounts to 1.5 to 3 gm. of SO^3 , and parallels the quantity of proteid decomposed. In fact, the *sulphates* are derived directly from our food, but principally from transformation of the albuminoids.

A purely animal diet, the ingestion of sulphuric acid, of sulphates and in general of *substances containing sulphur*, as well as all conditions which stir up the organic combustions, increase the proportion of *sulphates*. In pathological states, the proportion of *sulphates* is increased in almost all *acute febrile diseases* (pneumonia, rheumatism, typhoid fever, etc.) in *diabetes*, with animal diet, in *leukemia*, and in *dropsies* while the flow of urine increases. It is on the other hand decreased during the *convalescence* of acute fevers and in *chronic diseases*, especially renal.

Many processes of decomposition within the body, particularly increased intestinal putrefaction, show, however, the greatest increase in the amount of *combined sulphuric acid* at the expense of the *inorganic sulphuric acid*. An abundant administration of *phenol* (carbolic acid poisoning) produces the same effect. Dirmoser, as quoted by Bouchard, expressed the opinion that the *intractable vomiting of pregnancy* is due to the absorption of such putrefactive products as *indol* and *skatol*. Bouchard has described under the name of *stercoræmia* certain conditions of intestinal origin, in which the urine is not formed, and which is quite analogous to *uræmia*. *Stercoræmia* then, is an intoxication of intestinal origin; a complex condition, as Bouchard calls it. "The symptoms observed are vomiting and collapse; cold, clammy perspiration; small, rapid pulse; retention of the intelligence, and death from asthenia. It is not necessary that there should be intestinal obstruction to cause stercoræmia. While *chronic constipation* causing obstruction may induce it, *stercoræmia* may yet occur without this. It occasionally develops in persons whose kidneys are diseased, and may therefore be uræmic."

On the other hand, we can't help but thinking that certain catabolic changes, sulpho-conjugations and intense oxidations have a very favorable influence upon infection and auto-infection.

I have endeavored to give a résumé of the role of SULPHUR in the economy and of the changes this organogenic element suffers in normal and abnormal conditions of the system, and now I shall follow with the general effects of SULPHUR as a drug.

(To be continued.)

GUIDING PRINCIPLES IN SURGICAL DIAGNOSIS.

BY

DESIDERIO ROMÁN, A. M., M. D.

Chief Surgeon to St. Luke's Hospital, Philadelphia; Consulting Surgeon to the Homœopathic Hospital of Delaware, at Wilmington, Delaware.

(Read before the Germantown Homœopathic Medical Society.)

THERE are principles in surgical diagnosis and certain laws in surgical pathology which, when properly interpreted, guide the surgeon not only to a diagnostic conclusion, but at once to an opinion as to treatment and prognosis. The principles in surgical diagnosis are not infallible; they are simply the connecting link, the wireless station for the reception of impressions from the patient to the experienced observer. I speak of an impression wave, because it is true that diagnosis in surgery occurs frequently by impressions, by intuition—psychically it may please some of you to call it; as it is not always the totality of symptoms and physical signs which leads to a diagnostic conclusion in surgery, but rather the interpretation of one salient point, which is recognized at once by the expert, then expanded by a rapid process of exclusion. The impression is like an electric spark; the differential diagnosis which follows the impression is merely the “cracking of the shell to extract the kernel.”

The laws of pathologic processes are scientific, trustworthy, permanent like the law of gravitation and regular as the night follows the day. The phenomena of inflammation are an excellent example: wherever inflammation occurs you have the law in operation, namely—hyperæmia, osmosis, diapedesis or migration through the vessel wall; hyperplasia, degeneration, resolution. Pathological anatomy then teaches us that inflammation in certain groups of cells behaves differently than in others, rather that the cells have individual behavior under

the influence of inflammation, a power of resistance, a greater or less vulnerability under the same influence; knowledge of and familiarity with this law enables the surgeon to apply his surgical principle. This can be illustrated humorously by calling the play between the law and the principle the conundrums of pathology. Why is it that carcinoma tends to recur locally or near by? The answer would be, because its cells migrate through lymphatic channels into the nearest lymphatic glands. And why is it that sarcoma tends more often to recur remotely from the primary focus? Because its histological constituents open directly into blood channels, and its cells may wander distantly.

The utility of this knowledge is a prognostic one, in that in a general way a sarcoma which has been radically extirpated and does not recur within a short period of time (say six months to a year) the outlook for the patient is far more favorable than in carcinoma, where metastasis can remain latent in the lymphatics for a number of years.

Why are the breasts, the uterus, the glands and cutaneous structures more prone to malignant growths? Because their functional activity is conducive to cellular hyperplasia under irritation. Why does inflammation in mucous and cutaneous structures tend to rapid resolution and prompt healing? Because of the greater vascularity of these parts. Why does inflammatory process in bone, cartilage, tendon, joints, cornea and the like, manifest indolence, retrogression and chronicity? Because of the limited blood supply.

And thus *ad infinitum* we can go on analyzing the laws governing morbid anatomy—but the moral is this: It is essential to be familiar, indeed, thoroughly acquainted with the susceptibilities, tendencies, predilections and endurance of the structures throughout the body, in order to know at once what to expect, and this knowledge is acquired only by the handling of pathologic products in the largest possible numbers and with the greatest frequency, directly from the body, until thoroughly acquainted with all its characteristics, and not by sitting at home reading it out of books and looking at microscopical slides mounted by someone else, and without the association of the clinical features of the case with the pathologic products.

Let us see our line of thought in the diagnosis of intracranial conditions from a surgical standpoint, based upon the clinical fact that a very large percentage of the lesions of the

head are of traumatic origin, and a much smaller percentage neoplastic or inflammatory.

Where an injury is located, and to what degree it affects the internal region, is the diagnostic key in brain lesions; and it being established that traumatism of the head must be explored (unless free from surgical and neurological guides at the time of the accident, immediately after it, and for a period of say twenty-four hours), it follows that the diagnosis of cranial and intra-cranial lesions of traumatic origin is always a foregone conclusion. Of brain neoplasms, the viewpoint is entirely neurological, as it deals solely with a problem of cerebral localization as the landmarks, and the application of the law of pathology; that is to say, having decided that there is a growth in the temporo-sphenoidal, cerebellum, parieto-occipital lobes, or ventricular, we infer at once that a temporo-sphenoidal growth is usually sarcomatous, as it springs generally from the pituitary body or from the pachionian granulations. The frontal, temporal, parietal and occipital lobes are more likely to be the seat of a gliosarcoma, the cerebellum of sarcoma or cystic glioma. Inflammatory lesions of the brain are usually the result of middle ear and mastoidal infection, and therefore the localization would occur at the cerebellum or at the temporo-sphenoidal lobe while cystic conditions are apt to be found anywhere, but most often in the proximity of the ventricles. I do not speak of tubercular lesions of the brain because they are not as yet diagnosed with surgical intentions, but I venture to predict that an early craniotomy may prove to be a successful way to combat tubercular meningitis, in like manner as we claim remarkable successes in the treatment of tuberculosis of the peritoneum and joints. And why not? I do not speak of carcinoma of the brain because such a lesion is always metastatic, and its recognition is therefore a matter of inference.

In diagnosing conditions about the face and neck we have here an enormous field of possibilities. The multiplicity of lesions is due to the multiplicity of structure. In fact, almost every lesion and anomaly known in pathology can develop about the face and neck. We have, indeed, every possible material for the development of inflammatory conditions, and for growths of every conceivable cellular element and cell combination, from an ordinary atheroma, or a wen, to a dermoid cyst and teratoma.

Passing downwards in the human laboratory we come to the chest. Intrathoracic pathology for the purpose of diagnosis can be put down as essentially of inflammatory origin. That is to say ninety-nine and nine-tenths per cent. of all the diseases within the chest belong in origin to the inflammatory type, while malignant growths are exceedingly rare, usually metastatic, and when primary spring from the mediastinum. This knowledge simplifies our diagnostic conclusions, and we follow the principle that thoracic lesions are, from beginning to end, one in the natural history and evolution of inflammation. For example: If we have to deal with a pleural effusion, we take into account whether or not the course of the inflammatory process is one of simple serous exudation, or whether it has progressed to the stage of purulent transformation.

In the abdominal cavity we have, as in the face and neck, the soil and provocation for the development of all forms and degrees of inflammatory changes, as well as for the multiplication of embryonic cells. The diagnosis of inflammatory conditions is attracted pre-eminently by the localization of pain and tenderness; add to which your knowledge of the morbid anatomy of that particular region, and you have the guides to the solution of the problem in any given case. On the other hand, the recognition of abdominal growths is usually first signalled by disturbance of function, by deformity, or both, and less frequently by localized pain.

Diseases originating in the bones are, for the most part, inflammatory, and such inflammation is most generally due to an injury, or to secondary infection.

The influence of tuberculosis, of syphilis and constitutional dyscrasia we know, (from close familiarity with the effect of these processes upon histologic elements), the behavior, the tendencies and results which can be expected; hence the confidence or apprehension in the mind of the surgeon as regards these etiologic factors is quickly reached, and the judgment can be said to be generally accurate, from his thorough familiarity with the intrinsic *modus operandi* of the same.

In conclusion, I desire to emphasize the object of this paper, that is, to focus your minds upon the fact that there are really no difficulties in forming a proper diagnostic judgment, provided that you possess a thorough knowledge of pathologic anatomy and such further knowledge as is acquired by hard

and conscientious labor and experience with the largest possible number of cases.—This is the real secret of success in Surgical Diagnosis.

A METHOD OF SECURING FRESH AIR IN THE TREATMENT OF TUBERCULAR CASES IN LARGE CITIES, WITH THE REPORT OF A CASE.

BY

G. HARLAN WELLS, M. D., PHILADELPHIA, PA.

Clinical Instructor in Medicine, Hahnemann Medical College of Philadelphia.

ONE of the most difficult problems which confronts the physician in the treatment of tubercular cases in large cities is how to secure for the patients an adequate amount of fresh air. No matter how well a room may be ventilated, experience has shown that it is not the ideal place to treat patients suffering from pulmonary tuberculosis, and that we must get the patients out-of-doors for a large part of the twenty-four hours if we are to obtain satisfactory results. Just why this is the case is hard to determine. Chemical and bacteriological examinations of the air in properly ventilated rooms fail to show any decided difference between it and the outside air, and yet there is a decided difference in the clinical results in patients treated under these two conditions. Some have endeavored to account for the difference by attributing the better results obtained out of doors to the added effect of the sun's rays, but this explanation does not seem to me to be entirely satisfactory, for under ideal conditions it is possible to have the patient exposed to the rays of the sun even in his room, and yet even then the beneficial effects do not compare with those obtained from the out-of-door treatment. It has been stated by English clinicians, especially by Burton-Fanning, that the superior results obtained from the out-of-door treatment arise from the fact that the constant motion of the air is an important factor.

Whether this is the correct theoretical explanation or not I shall not attempt to say, but it is important for every physician who assays to treat tubercular patients to thoroughly realize the fact that we should *always aim to get the patient out-of-doors as large a part of the twenty-four hours as conditions will permit.*

The employment of house tops and yards for the attainment of this purpose is, of course, familiar to us all. But there are many instances where neither of these are available or where they are objectionable. It has, therefore, been my custom during the past two years to advise those patients who could not obtain an adequate supply of fresh air at home, and whose physical condition would permit, to spend the day in one of the large public parks. I do not mean by this one of the small squares which are scattered through the thickly populated parts of the city where the air is more or less stagnant and full of dust, but in the large public parks which are found in almost any city more or less removed from the densely populated districts. Fortunately in Philadelphia we have such a park—Fairmount Park—that is conveniently reached and well suited for this purpose. The park is quite a large one, covering 3,341 acres, thus obviating any danger of the patients becoming in any sense a menace to other persons. Despite this fact tubercular patients *should always be instructed, in all places and under all conditions not to expectorate on the ground, but to use either a spit cup or pieces of rag that can subsequently be burned.*

The details of the plan which I have adopted are as follows: Where the physical condition of the patients will permit, as evidenced chiefly by the state of the pulse and temperature, I instruct them to go to the park about nine o'clock in the morning, and, if weather conditions are suitable, to remain until an hour before sundown. They are instructed to select a place that is protected from heavy winds and where the sun has free access, preferably on the southern slope of a hill. If the weather is cool the patient should be warmly clothed and should have the feet and legs well protected from cold or dampness. He should also carry with him a quart of milk, four raw eggs and some sandwiches made with plenty of meat and butter. On rainy days the patients are advised to remain at home in bed with the windows open as wide as weather conditions will permit.

The history of the following case that has recently been under my treatment shows what results may be obtained by the methods above referred to and will also serve to illustrate some of the practical details of the treatment:

Patient.—G—E—. Male. Age, 33. Shoemaker by trade.

Family History.—Father died at the age of forty of unknown cause. Mother is living and well. No hereditary history of tuberculosis obtainable.

Personal History.—Patient was in good health as a child with the exception of a few minor disorders of childhood. Three years ago had an attack of lumbar pneumonia from which he apparently made a good recovery. Does not smoke or use alcoholic liquors in any form.

History of the Present Illness.—(April 1st, 1907.) For the past four months the patient has been feeling weak and languid but has not lost any time from his work. During the past two months has noticed that he was steadily losing weight. About six weeks ago he began to cough. The cough is dry in character associated with the expectoration of a small quantity of mucous, apparently from the throat, each morning. Cough is not severe and not associated with any pain in the chest. Becomes quite short of breath and weak on slight exertion. Has never expectorated any blood. Appetite is fair. No vomiting. Bowels regular.

Physical Examination.—Maximum daily temperature, 100.6. Pulse, 104. Weight, 141 pounds.

Lungs.—Small area of consolidation near the apex of the right lung below the clavicle. At this point there is found slight dullness on percussion, marked broncho-vesicular breathing. No rales.

Heart.—Area of cardiac dullness normal. No murmurs. Muscular element fair. Cardiac contractions regular and rapid (104 per minute).

Sputum.—Very scant. No tubercle bacilli found.

Clinical History of the Case.—For the next four weeks the patient continued his usual occupation in a shoe factory, working steadily all day and often extra work at night. During this period he made little, if any, gain except in weight. Notes taken on May 1st, show that his cough was about the same. Pulse, 104. Maximum daily temperature, 101. Weight, 151 pounds.

On May 1st, on my advice, he gave up his occupation and devoted all his time to getting well. He was instructed to go home and remain in bed for one week. The purpose of this was to keep him at absolute rest in order to reduce the temperature if possible. Aside from the therapeutic value of this

period of rest I also regard it as having great prognostic significance.*

At the end of this period the temperature had gone down to a maximum of 99.4 daily. The patient was then instructed to ride out to the park on the trolley car at 9 A. M. and sit on a bench in a sunny place protected from the wind until 4 P. M. He carried with him a quart of milk, four eggs and three or four meat sandwiches, which he ate during that period. At 4 P. M. he returned to his home and went to bed. As the pulse and temperature were not elevated by this procedure I increased the time of his remaining at the park, gradually, until he remained there from 8 A. M. until 6 P. M. On rainy days the patient remained at home in bed all day with the windows of his room wide open. During this period his daily diet consisted of three quarts of milk, seven eggs and as much meat and vegetables as he could comfortably eat. He also rubbed a half ounce of olive oil over the skin of the abdomen every night before going to sleep.

This treatment was carried out regularly and faithfully until the first of June, at which time his condition was as follows: Cough very much improved. No expectoration. Pulse, 86. Maximum daily temperature, 98.4. Weight, 165 pounds. (A gain of 24 pounds in two months.) Appetite good. Sleeps well. Slight shortness of breath on walking. Says he feels much stronger. Bowels move twice daily.

During the month of June the treatment was continued exactly as in May, the patient being advised not to walk any more than necessary as exercise increased his pulse rate over one hundred per minute. This leads me to say that one of the most frequent errors made in the management of mild cases of pulmonary tuberculosis is to permit the patient to walk about too much. It is safer to err on the side of too much rest than too much exercise.

On July 1st, the patient stated that he was feeling practically well except for some shortness of breath if he tried to walk fast. Cough has stopped entirely. Appetite good. Pulse, 84. Maximum daily temperature, 98.3. Weight 171 (a gain of 30 pounds in three months). Physical examination at this time showed the area of pathological broncho-vesicular breathing had diminished. No rales. The muscular

* (See *Hahnemannian Monthly*, July, 1907. "The Circulatory Phenomena of Pulmonary Tuberculosis and Their Relation to Diagnosis and Treatment.")

power of the heart and the pulse tension considerably improved.

Thus, as a result of three months' treatment, we find his cough has disappeared, his general strength is better, pulse less rapid, arterial tension improved, fever entirely controlled and a gain in weight of 30 pounds. In view of these favorable prognostic signs I regard the ultimate recovery of this patient as assured.

Despite the rapid improvement which this patient has made I feel no greater mistake could be made than to permit him to return to his occupation at the present time. No matter how rapidly the clinical symptoms, or even the physical signs, may subside under treatment, we know from the history of the tubercle bacillus and the nature of the pathological changes which it produces, that a long period of time is required for the natural processes of healing to become permanent. We must give the reparative changes time enough to become firmly established before letting up, to any extent, with our treatment. No less time than three months after the subsidence of all febrile symptoms should be allowed to elapse before it is safe for the patient to resume his former habits of life. In the case of the present patient I do not consider it will ever be advisable for him to resume his occupation as a shoemaker, if he wishes to be reasonably certain of freedom from a recurrence of the disease. Patients whose work necessitates them being confined indoors a large portion of the time, should, after recovery, adopt an outdoor occupation to insure a permanency of the cure.

FUSCHINA is a coloring substance used in the adulteration of wines. It produces: Redness of ears, deep red coloration of the mouth; slight tumefaction of the gums, with distressing burning and tendency to salivation; deep red urine, containing large quantities of albumin, and light red, profuse diarrhea, with severe abdominal pains.

The autopsy has plainly shown the degeneration of the cortical substance of the kidneys. It is not only perfectly visible under the microscope, but to the naked eye. This drug, better than any, comprobates the law of similars. Many cases of cortical nephritis, with consecutive albuminuria, have been successfully cured with fuschina, but it is a remedy that must be procured perfectly pure. The dilutions used, run from the 6th to the 30th.—*Joya Homeopatica*.

CARBUNCLE, WITH REPORT OF A SEVERE CASE.

BY

WALTER J. AXFORD, M. D., PHILADELPHIA, PA.

CARBUNCLE is a localized invasion of pyogenic organisms, generally the staphylococcus pyogens aureus, and due mostly to some injury, or often the result in the course of albuminuria or diabetes. It consists of a more or less extensive gangrene of the subcutaneous tissues. The infection may be an auto infection, but most often it takes place down the sweat glands or hair follicles. The carbuncle is first felt as a hard, painful swelling due to infiltration of the subcutaneous tissues, the skin becomes dark, even to a purplish tint, the swelling and induration spread from the periphery in every direction, but especially in the direction where the subcutaneous tissues are loose. As the color and swelling spread, the centre will be found to become soft, while small vesicles form, and these vesicles soon become pustules which rupture, each one forming an opening which discharges a thick pus, and later sloughs. These openings tend to run together, and form a large crater. The most frequent seat of carbuncle is the back, the nape of the neck, the shoulders and the gluteal region. While the nearest glands are enlarged and painful, they do not break down or suppurate unless the carbuncle is in a very vascular part, when you may have infective thrombosis, which condition carries the infection, and may make the prognosis unfavorable. Where you find a small superficial lesion over a loose spongy tissue, it is best to open it at once, for this is where the gangrene will spread very rapidly, and may not show extensively on the surface until the gangrene has caused a vast loss of tissue.

TREATMENT.

Incise and curette freely the infected area, give it good drainage, use instillations of 50 per cent. to 75 per cent. carbolic acid solution around the periphery to limit the spread, and swab out the cavity with pure carbolic acid. The cavity should be packed with an antiseptic, the dressings wet with some carbolic acid solution and changed several times a day.

THE CASE.

Mr. S., age 63, November 29, 1906, found a pimple on back

of the neck, which kept enlarging and turning dark in color. He consulted his physician who treated him until January 6, 1907. In that time his physician had operated twice, cleaning the wound out thoroughly by cutting away diseased edges and curetting the base, but to no avail, for on January 6, 1907, I was called, in consultation, and found a carbuncle measuring $5\frac{1}{2}$ by 6 inches in diameter, with a dirty sloughing base, the edges indurated and undermined with necrotic tissue; the pulse was rapid and intermitting; the temperature 102; the patient emaciated and bathed in a profuse sweat, so much so that the bed clothing had to be changed frequently. I advised that he be taken to the hospital, where his wound could be dressed often, which advice was taken, and the patient admitted to the hospital January 6, 1907, his condition being critical. He was put on the homœopathic trit. of silicea and hepar sulph. in alternation; the carbuncle was treated three times a day with instillations of 50 per cent. carbolic acid at the periphery, and the wound packed with protonuclear special powder. The dressings were kept wet with a lysol solution. On the third day his pulse was 80 and regular, the temperature was down to 101, but fluctuated slightly. The base of the ulcer was clear and granulating about half way across, the ligamentum neuchi having sloughed away, and the muscles could be lifted up separately with the fingers. At the end of the first week the base of the ulcer was entirely clear and granulating, with the exception of the lower border, which was undermined about two inches, caused by the ligamentum neuchi which was still sloughing. This I cleaned out as well as possible, and kept packed with the same powder, with the result that in ten days from his entrance to the hospital the carbuncle was entirely under control, with the sloughs entirely gone and the granulating wound left.

At the end of the third week the patient left the hospital, pulse and temperature normal, and the granulations flush with the skin and beginning cicatrization. The same dressings were continued with the exception of the instillations, which had been discontinued at the end of the tenth day.

The wound healed kindly, the edges contracting, leaving a scar about three-quarters of an inch wide and about an inch and a half long.

**A BRIEF STATEMENT OF THE SITUATION IN THE HOMŒOPATHIC
SCHOOL AND ITS RELATION TO THE ATTITUDE OF
THE OLDER SCHOOL.**

BY

ELDRIDGE C. PRICE, M. D., BALTIMORE, MD.

IN all great bodies of men there are two animating ideas, sentiments, attitudes, one of which predominates from time to time, to be succeeded by the other. One of these ideas may be regarded as the idea of progress, the idea which animates the pioneer mind, the idea which carries the student of science ahead of the masses, the idea which forges ahead, which puts old errors into the background and emphasizes the new things that are supposed to stand for truth; the other is the conservative idea, which holds to the old because it is old and is slow to accept the new, the attitude which may be too cautious and too critical for progress.

In the school of homœopathy these two ideas are continuously fighting, one sometimes being in the ascendancy and sometimes the other. As the American Institute of Homœopathy may be considered as representing the homœopathic profession, so it is but natural to judge the attitude of the school at large by the attitude assumed by the Institute.

Beginning about the year 1891 the American Institute of Homœopathy showed signs of awakening to the living issues of the times. The fundamental questions upon which rested the posology of the school were at that time discussed, and with these questions other collateral beliefs were also considered. Resulting from this awakening two dominant ideas were evolved, one which still held that the standards of science of Hahnemann's day were all-sufficient for the present, and the other that "times had changed," and that while truth was probably always the same, yet more truths were constantly being discovered which were throwing new light upon old problems, and showing our interpretation of these problems to be defective, and that it was time to investigate critically the foundational principles taught by Hahnemann. The advocates of this latter idea, were viewed askance by the more conservative element, but the radicals persisted and in time the meetings of the Institute were to quite an extent dominated by these minds.

The culmination of the ascendancy of this liberal party was at the meeting at Niagara in 1904. Here, privately among a few of the progressive members, a suggestion was made to organize what might be considered a society of modern homœopathists. This was not prosecuted beyond the initial suggestion and nothing was done.

However, the pendulum then began to swing to the other side of the perpendicular, and by the time of the meeting at the Jamestown Exposition very little was to be heard of limit of drug subdivision, of the sphere of applicability of methods not homœopathic, or of primary and secondary drug action. The conservative idea had full possession of the field.

In the meantime a question of engrossing importance has loomed into sight. It is the question of reconciliation of differences between the two dominant branches of the medical profession. And here again, there is a division of sentiment as to the proper course to adopt at the present juncture. Some are for an uncompromising attitude, an attitude which demands the recognition of rights of the homœopathic school, without at the same time recognizing the rights of the older school. The less arbitrary members of the Institute show signs of meeting the overtures of the older school, and accepting the invitation to come into the various organizations, and to merge their individuality, both as believers in homœopathy and as physicians, into the great mass represented by the American Medical Association. There is also a third but more careful and conservative element among us, which advocates an attitude of respectful and self-respecting consideration of the situation before final decision.

Strange as it may seem this last class is composed largely of the men who were to be found among the obvious radicals of a few years ago. It is these men who constitute the safest factor in the problem, and upon whom we may depend for its ultimate solution.

This, then, is a brief statement of the present situation occupied by the homœopathic profession of to-day relative to the attitude the older branch of the profession has adopted towards homœopathic practitioners.

The question must sooner or later be definitely settled, but during the stage of consideration of the situation there are some points that should not be overlooked. One of these is that in this suggested reconciliation we of the homœopathic

school should recognize the fact, that we must be willing to grant just concessions if we are to expect them. We should not ask more than we are willing to grant. If we expect to be granted the right to believe and practice according to our judgment, we must also grant the same right, and we must also recognize the fact that men may differ from us on vital points and yet be quite as honest as are we; and above all others there is one thing we must rigidly avoid, and that is the repellant, antagonistic attitude, the desire for a fight at the slightest provocation.

If, as we believe, homœopathy is true, and we will act in accordance with that belief, always demeaning ourselves in a dignified, courteous manner we have quite as good a chance of converting the individuals who are inviting us to be of them as they have of converting us to their way of thinking.

Of course there is no reason why organizations for the special purpose of considering questions pertaining to homœopathy should not continue to exist, just as organizations formed for study in other definite fields exist; in fact, homœopathic organizations *must not be abandoned*. They should be regarded as the centres from which we may draw inspiration, and from which and in which the development of the homœopathic idea may grow.

I have great faith in evolution and arbitration, and I believe if the foregoing ideas animate our new Council on Medical Education, and this council will mildly but firmly persist in a course which is animated by common sense, justice, and dignity a response will be elicited from similar minded men in the American Medical Association.

In concluding these brief remarks there is one question which is rapidly becoming a living issue, and this question I will leave with those who are able to answer: What part shall our colleges take in this great work of reconciliation of the two dominant branches of the medical profession?

EDITORIAL

UNITY OF ACTION AMONG THE HOMŒOPATHIC PHYSICIANS OF PENNSYLVANIA NECESSARY FOR THE PRESERVATION OF OUR SCHOOL.

THE coming session of the Homœopathic Medical Society of the State of Pennsylvania will be a memorable one in the history of homœopathy in this State. As every homœopathic physician knows, or at least ought to know by this time, the old school is making a supreme effort to gain absolute control of the power of examining and granting licenses to applicants desiring to practice medicine in this State. In order to accomplish this end they are willing to go to any extreme and will not hesitate at compromising their honor, at sacrificing the traditions of the medical profession and at betraying the interests of the public. If any one doubt the truth of these statements let him read the history of the recent medical legislation in New York, where the old school, for the sake of crushing out the homœopaths and eclectics did not hesitate to form a league with the osteopaths and give their support to a species of treatment, which, applied to the vast majority of medical diseases is but arrant charlatanism.

But the most important lesson for the homœopathic physicians of this State to learn from the New York legislation, is the fact that had the homœopathic profession of New York been united in its opposition to this law it could never have been carried through. Unfortunately, however, while some of the representatives of the homœopathic school pointed out to the Legislature and to the Governor the injustice of the proposed law, others expressed themselves as favoring the single board law. With the old school urging the passage of the act by every influence at their command and with a number of the representatives of the homœopathic profession assenting to it, there is little wonder that the bill should have been passed. That the effects of this act will be destructive to the interests of homœopathic physicians and students no one who will study the history of medical legislation can doubt.

It will not be long before the homœopaths of Pennsylvania will have to fight the same law that was passed in New York. We will have to contend with determined and influential enemies and if we are victorious at all it will only be through the united and harmonious effort of every man in the homœopathic school.

The following speech by Dr. Wm. H. Watson presents the arguments against the single board bill under allopathic control in an able and comprehensive manner and points out the effect which such a law will have on the homœopathic school.

SPEECH ON THE MEDICAL EXAMINATION BILL BY WM. H. WATSON,
M. D. DELIVERED AT THE HEARING ON THIS MEASURE BEFORE GOVERNOR HUGHES, OF NEW YORK.

THIS bill is plainly a most insidious and atrocious attempt to abolish the present excellent system of medical examinations, and, by the creation of a single examining board, to give the allopathic school a controlling influence in medical educational matters in this State. Its object is, as far as possible, to obliterate all rival schools of medicine.

The objections to the bill may be conveniently arranged under two general heads:

The injustice which will be done to the smaller schools—the homœopathic and eclectic.

Its great detriment to the State.

INJUSTICE TO THE WEAKER SCHOOLS OF MEDICINE.

Allow me here to crave the indulgence of your excellency for a single moment in order to state certain postulates which I believe to constitute the axiomatic bases of the argument in relation to the infringement by this bill upon the rights of the weaker (the homœopathic and eclectic), schools of medicine.

First—It is consonant with the recognized policy of this government to permit the members of organized bodies of its citizens entire freedom in the exercise of the civil right to perpetuate and maintain their respective associations.

Second—The licensing of medical students is a civil right, the exercise of which should be extended to all schools of medicine equally.

Third—It is unwise, impolitic and unjust to deprive the homœopathic school of the civil right to examine and license its own students.

Fourth—The State having vested in separate schools the same civil rights embracing those of organizing their own societies, hospitals and medical colleges, it would be an entire reversal of its established, fair and impartial policy to prohibit each from licensing its own students.

Fifth—The principle of minority representation and the principle of establishing single boards of medical examination in any State, are one and inseparable.

Sixth—The establishing of a single board, controlled in any degree by one school of medicine, would constitute class legislation of a most objectionable form.

Seventh—It would be impolitic and against public welfare, to force by law, a coalition, involving important rival interests, until there are evidences of greater harmony between the different schools than now exist.

Dr. D. B. St. John Roosa, who is one of the most eminent of the old school physicians of the city of New York, if we may judge by the following extract from a letter published in the *New York Tribune*, April 15, 1907, evidently coincides with this view:

"In the long struggle which ended in the passage of the law of 1891, the homœopaths and eclectics finally coöperated with the old school, on condition that each of us should have our own board. I have always thought that this law should remain as long as any one of the three sects in medicine insisted upon it. As one of those engaged in securing the three boards, I have felt that the agitation for one board by our State Medical Society was not quite fair to the homœopaths and eclectics, and as likely to put back the cause of unity in the medical profession. My worst forebodings are being realized in the absurdities of this bill. I trust a sober second thought may prevent its becoming a law, and if that does not come that the executive may interfere to prevent our legislators from doing a great harm to the State."

The Hon. St. Clair McKelway, vice chancellor of the university, holds similar views as shown by the following quotation from the *Brooklyn Eagle* of March 19, 1907:

"Clearly to understand the situation, however, one should recall the history of the last quarter of a century. No new medical legislation should be adopted, unless to our legislators it can be shown that the medical profession, not as one school calls itself, but as the State recognizes it, in its three forms, is united in the demand. The excellent medical practice act, which has lasted for so many years, became a law only when the dominant school of medicine united with the homœopathic and the eclectic schools, in an earnest effort to make the

authority of a physician to practice medicine in this State one solely based on satisfactory knowledge and attainments. The position which the homœopathic and the eclectic schools of medicine take is an absolutely proper one. When the present three-board-practitioners act was enacted, no more loyal supporters were to be found than the practitioners of these two schools. In the working out of this act, those schools have maintained just as high standards, and have obeyed the spirit and letter of the law as conscientiously as those who represented the 'offish' school.

"The proof of this statement is to be found in the percentage of rejections of each of the three boards. To one who is conversant with post-graduate teaching courses, the percentage of matriculates from the homœopathic and eclectic schools does not differ materially from the percentage of the homœopathic and eclectic practitioners of the country. These practitioners are as earnest to improve themselves, their education is as thorough and their requirements for practice as high and as honorably maintained as those of the older school.

"Since this is so, it would be unfair that a single board should be constituted, which, by any possibility, could ignore the rights of those practitioners, who, although numerically in the minority, have shown themselves to be in favor of respectable medical standards."

The simple acceptance of minority representation in a single board, would constitute a perpetual brand of inferiority and subserviency of action on the part of the homœopathic members thereof.

The homœopathic profession in this State will never consent to allow itself to be placed in such an embarrassing and disadvantageous position.

Should the present movement succeed, the allopathic school would surely, in the last analysis, acquire and forever retain a majority control of the medical educational interests of this State. The conscious possession of irresponsible power, such as a majority control by one school in a single board provides, will inevitably lead to its abuse.

The attainment by the allopathic of a legal supremacy over the homœopathic school, would insure to the permanent advantage of the former and to the permanent disadvantage, and in the end, to the actual dismemberment of the homœopathic school in this country.

In case there should be only one examining board the question of representation of the different medical schools could never be satisfactorily adjusted.

The function of the examining board being administrative,

the basis of representation thereon of the different schools should necessarily be equal in order to insure an impartial and just application of its judicial and executive powers. Unequal representation of the different schools in a single examining board would place a premium on favoritism.

The allopathic school, would never approve of a mixed board, having equal representation, for the obvious reason that the homœopathic and eclectic members, by uniting would be able to assume control.

On the other hand, neither the homœopathic or eclectic physicians would approve the formation of any single board, without equality of representation.

The fact that the allopathic school is concededly the largest, should give to it no inherent right in any way to limit or control the civil privileges of other schools or systems and has no pertinency whatever to the argument.

At the bar of public opinion, at least, it will stand on precisely the same basis as other schools of medicine.

It will be noticed that the bill provides for the appointment of a board of nine members by the Regents, and that no reference is made to the different schools into which the medical profession is divided. It will therefore be discretionary with the Regents as to whether the homœopathic and eclectic schools shall be recognized at all or not.

This provision affords no adequate protection against allopathic control. It is, therefore, on account of its indefiniteness and uncertainty even more dangerous to the homœopathic and eclectic schools than other modes of appointment.

The very fact that no mention is made of the representation from the various schools of practice is a conclusive argument that the framers of the bill do not dare to specify that the rights of the several schools of practice shall not be infringed upon in the new law. It is certainly placing the Regents in an invidious and unenviable position, since it places upon them the onus of making apportionment of representation to the different schools and of filling vacancies which may occur.

It would be an act of as manifest injustice to compel medical students from other branches of the profession to obtain a license from a board in any respect controlled by allopathic influences as it would be to compel Episcopal and Presbyterian theological students to be examined for admission to the ministry by a board composed of Methodist clergymen.

It is true that the Methodists are, numerically, stronger than the other two denominations combined, but that does not give them the civil or vested right to examine students of the other two religious bodies. The allopaths are numerically

stronger than either of the other medical sects, yet this fact does not give them the right, in any sense, to administer the educational or other affairs of the weaker schools.

During the last eight years (of the severe struggle, lasting for a quarter of a century) previous to the placing of the existing law upon the statute book there was a constant and very bitter contest with the allopathic school in reference to the basis of representation upon the then, proposed, single board of examiners, and yet, forsooth, it is stated in this chamber to-day, by the advocates of bill 1272 that there can be no possibility of disagreement upon that essential point! Can the leopard change his spots?

It follows from what has been above said that the only method for securing exact and impartial justice is to allow each sect or school to have its own separate board of examination.

As there have been many misstatements in reference to the position of the homœopathic school in relation to the osteopaths I will take occasion here to correct these errors.

The homœopathic profession always has been, and now is willing, that any body of medical men, legally recognized by the State, should have its own separate board of medical examiners, provided only such body of medical men is required and compelled to fully comply with the standards of preliminary and professional education now existing in this State.

The osteopaths, therefore, whenever they are ready to comply with the now existing requisitions for examinations should be permitted to have their own board of examiners, just as the allopaths, homœopaths and eclectics now have, and should be allowed to control their own societies, colleges and examinations without the slightest interference from any other organization. In other words, the homœopathic profession believes that any sect or organization in medicine should have all the civil rights which it demands for itself. It desires a square deal and no medical trust in the Empire State.

It is stated that the Medical Society of the State of New York is not responsible for the origin of this bill. This we are not constrained to believe to be absolutely untrue. In proof of this I quote again from Dr. Roosa's letter of April 15, 1907:

"It seems that the Committee on Legislation of the State Medical Society is back of this bill. In such a compromise as this there is not only a sacrifice of principle on the part of the medical profession, but worse than that, is the legalizing of an inefficient and dangerous mode of practice, which once protected by the State will do much more harm than it does

now with its assumption that its practice covers the whole of the science of medicine."

The statement is made that "no untried principle is involved." While it is true a single board of medical examiners has been chosen for in various parts of the United States as a direct result of the action of the American Medical Association, which is the national organization representing the allopathic school of practice, it is also true that in the States where the single board has been established, the homœopathic school realizes that gross injustice is being done and its members are moving for the establishment of separate boards.

THE PASSAGE OF THIS BILL WILL BE OF GREAT DETRIMENT TO
THE STATE.

It will inevitably tend to break down the present system of examination by the dissatisfaction which it will create.

Prior to the passage of the law providing for the preliminary education of medical students in 1889 (ch. 446) and its amendments by the law of 1890 (ch. 499) and the passage of the law creating State boards of medical examiners in 1890 (ch. 507) the average standard of medical education in this country was so low, both in the abstract and in comparison with the other learned professions, as to have given rise to an urgent demand for its elevation from within, as well as from without the profession.

Said President Eliot of Harvard University, in his report of 1879-1880, "An American physician or surgeon may be and often is, a coarse and uncultivated person, devoid of intellectual interests outside of his calling, and quite unable to either speak or write his mother tongue with accuracy." The laws of 1889 and 1890 and their subsequent amendments were enacted, and in the short space of five years the State of New York came to enjoy the proud position of standing in the very vanguard of medical education.

The results obtained under the present law have fully demonstrated the wisdom of its framers. It furnishes abundant means by which the several schools of medicine are provided with examining boards of their own selection and placed wholly under their own control.

It is a good law—a satisfactory law, and while it confers no special or peculiar privileges upon any class of the community, it is one that by its liberal, impartial and entirely catholic provision has commended itself to the good sense of the people of this State. It is so administered that col-

lusion, laxity or partiality is impossible. The possession of a license from the State Board of Examiners of New York is an assurance to the public of the qualifications of him or her who shall attain it and is therefore a legitimate passport to professional success. The archives of the university will forever attest to anyone interested, the exact tests relative to his or her professional knowledge applied in the examination of any man or woman who has earned its endorsement.

If this movement is insisted upon by the allopathic school, it will inevitably cause such a bitter and protracted contest between that school and other branches of the medical profession as has never yet been witnessed in this State.

The advocates of a single board have presented no cogent reason, nor demonstrated any real necessity for disturbing the present law and incidentally precipitating a disagreeable medical contest. The law is proposed solely in the interests of the allopathic school. The people of the State do not desire it. The single board is not sought by the homœopathic or eclectic schools; but, on the contrary, it is put forth by members of the allopathic against the expressed wishes of both of the other schools and in opposition to the matured opinions of a majority of the present board of Regents. The introduction of the bill into the Legislature stirred up old animosities and has made this bill the center of the most bitter fight between the three incorporated and legalized schools of medicine, the State has known for a quarter of a century. Should it become a law it will destroy every trace of the existing harmony between these schools and indefinitely postpone the unification of the educated medical men of the State under one common flag, which thinking men have so long desired. To-day we are confronted by the proposition contained in bill 1,272, which, if it becomes a law, by the dissatisfaction which it will produce, will inevitably tend to the disintegration and ultimate destruction of the present safeguards of qualification for admission into the medical profession; it will degrade the profession of medicine, humiliate the State and inflict a lasting injury upon its people. It will set back the hand of progress upon the dial plate of time for many years.

The people of the State of New York have desired and now desire no change in the boards of medical examination.

With these brief remarks I leave the bill in the hands of the people's executive, a man whom they believe and whom the speaker believes to be influenced in the discharge of the duties imposed upon him by the high trust committed to his

charge, by allegiance to no sect, school, church or political faction, but who in the spirit of the immortal words of Abraham Lincoln will ever act "with firmness in the right as God gives us to see the right."

LETTER OF DR. ST. JOHN ROOSA ON THE NEW MEDICAL LAW IN
NEW YORK.*

To the Editor of The Tribune:

SIR: In the passage through the Assembly of a bill entitled "An act to regulate the practice of medicine and to repeal," etc., a ridiculous climax in medical legislation in the State is evidently near. This bill was originally intended to convert the three boards of medical examiners of the State into one, and to stop there. It has now become a bill acknowledging a certain number of *osteopaths* as licensed practitioners of medicine. The former requirements for the entrance upon the study of medicine and for an independent and thorough examination by a State board appointed by the Regents are maintained, except as to osteopaths, as in the old law which went into force in 1891—a law which has effectually protected our people from ignorant people professing to practice a science and art of which they knew nothing. But the little joker is found in a paragraph beginning:

"Where the application be for a license to practice osteopathy the applicant shall produce evidence that he has studied osteopathy not less than three years, including three satisfactory courses of not less than nine months each in three different calendar years, in a college of osteopathy maintaining at the time a standard satisfactory to the Regents. After 1910 the applicant for a license to practice under this act shall produce evidence that he has studied not less than four years, including four satisfactory courses of not less than seven months each in four different calendar years, in a college maintaining at the time a standard satisfactory to the Regents."

So far as this interpolation is intelligible, it seems to mean that osteopaths—a class of practitioners who have no colleges that, by any stress of language, can be called medical colleges of the kind known as such in any part of the civilized world—are to be admitted to practice with such qualifications as "a college of osteopaths maintaining a standard satisfactory to the Regents" may be able to furnish. After 1910 what is to happen is not plain. Whether the college which is

* (Dr. St. John Roosa is one of the most eminent old-school practitioners in New York City, and prominently identified with medical education.)

to maintain a standard satisfactory to the Regents and which must be attended for seven months in each of four years is to be a medical college or a college of osteopathy does not appear. Perhaps it was not intended that it should. The whole interpolation appears as if it were meant to convey the idea that osteopaths after 1910 would be obliged to study medicine, like the candidate for entrance into the medical profession. But I fear this is not so and that osteopathic colleges are meant. If so, this is a great waste of time. If the State of New York has decided to put osteopaths on the same plane and footing with those who have studied four years in a medical college such as is understood by that name, six months in one year, or, for that matter, six weeks, would be an adequate time to acquire the science and art of osteopathy. And this I say after a careful study of their works.

The remaining paragraph in the bill referring to osteopaths is perfectly clear—that osteopaths now practising are to be licensed with two qualifications that will not be liked by them; that is, they are debarred from giving drugs or using a knife, although one of their claims is that drugs and a knife are never needed to heal the sick.

“It is further provided that any person who shall be actively engaged in the practice of osteopathy in the State of New York on the date of the passage of this act and who is a graduate in good standing of a school or college of osteopathy within the United States which at the time of his or her graduation required a course of study of two years or longer, including the subjects of anatomy, physiology, pathology, hygiene, chemistry, obstetrics, diagnosis and the theory and practice of osteopathy with actual attendance of not less than twenty months, which facts shall be shown by his or her diploma and affidavit, shall, upon application and payment of \$10, be granted, without examination, a license to practice osteopathy, provided application for such license be made within six months after the passage of this act. A license to practice osteopathy shall not permit the holder thereof to administer drugs or perform surgery with a knife. Licenses to practice osteopathy shall be registered in accordance with the provisions of this act, and the word osteopath be included in such registration, and such license shall entitle the holder thereof to the use of the degree D. O., or doctor of osteopathy.”

It seems from all this that many members of the medical profession, for the committee on legislation of the State Medical Society is back of this bill, are anxious for one catholic profession, with one board of medical examiners, that they are ready

to recognize the osteopaths as regular legalized practitioners. Why the chiropodists and opticians were not included in this union does not appear. With this recognition and unity many of us will not agree. If the Legislature of the State of New York, with the executive, are determined to recognize osteopathy as co-equal with the practice of medicine, if our objections and remonstrances fail to prevent them from doing so, let the medical profession wash its hands of all medical legislation. In such a compromise as this there is not only a sacrifice of principle on the part of the medical profession, but worse, the legalizing of an inefficient and dangerous mode of practice which, once protected by the State, will do much more harm than it does now with its assumption that its practice covers the whole of the science of medicine. In deploring this ridiculous climax, which I hope may yet be averted by the veto of Governor Hughes should the bill pass the Senate, I agree with Dr. Watson, a former Regent of the university, who has, in his recent letter to *The Tribune*, deprecated the passage of the bill, creating one board of examiners, instead of three, thinking it a premature effort to unite the homœopathic, eclectic and old school boards. The bill was then without the osteopathic incorporation.

The State of New York was getting on very well with three boards of medical examiners. The examinations were the same in all the boards except in therapeutics. No interest of the people was impaired by such boards. The osteopaths were invited to comply with the same conditions and received the same privileges. They could then practice osteopathy as exclusively as they chose. No injustice was done them by the law. In the long struggle which ended in the passage of the law of 1891 the homœopaths and eclectics finally coöperated with the old school, on condition that each of us should have our own board. I have always thought that this law should remain as long as any one of the three sects in medicine insisted upon it. As one of those engaged in securing the three boards, I have felt that the agitation for one by our State Medical Society was not quite fair to the homœopaths and eclectics, and as likely to put back the cause of unity in the medical profession. My worst forebodings are being realized in the absurdities of this bill. I trust a sober second thought may prevent its becoming a law, and if that does not come that the executive may interfere to prevent our legislators from doing a great harm to the State. The State of Pennsylvania has a law similar to ours, passed in admitted imitation of the legislation of New York, which has harmonized the three sects in medicine. The pas-

sage of the bill which puts the osteopaths on the same footing with the old school—the homœopaths and the eclectics—in our State may influence our neighbors until a wide reaction occurs in medical progress. New York has been in the van of sound medical legislation since 1891. But now she seems to be striving to get back to the rear.

D. B. ST. JOHN ROOSA.

NEW YORK, April 15, 1907.

CONCERNING TELEPHONE COURTESY.

ALL physicians have doubtless been forced to contend with the vagaries of persons who call them up over the phone during their absence from their offices. It is the usual custom for such individuals to either refuse to give their names, or what is even worse, they make a promise that they will call the doctor up at the time specified for his return; or they will make appointments to call at his office at a given hour. In the majority of such instances they fail to keep such appointments, and the doctor loses time which he can ill afford. The offence is all the more serious because the doctor's sole capital is his time. In other words, these people deliberately steal.

Practically all physicians who succeed or have any chance of succeeding, take pains to have suitable parties to attend the telephone at all hours. It is therefore foolish in the highest degree for patients and others to refuse to give names as evidence of good faith in making appointments. Whether physicians can do anything in the way of curing the trouble is very doubtful. We believe it well worth the trial, but the details for accomplishing the much desired result are beyond our ken.

Possibly the greatest offenders are certain detail men, insurance agents, promoters, etc., with whom, of course, the theft is part of their scheming methods. This class of persons can be handled in very summary fashion in two ways: 1. Notify the house for which they travel; and 2. Refuse them a hearing when they call.

GLEANINGS

TUBERCULOSIS OF THE BLADDER—TREATMENT.—The possibility of curing vesical tuberculosis by local treatment is shown by Rovsing (*Archiv für klinische Chirurgie*, Band lxxxii, 1) in a masterly article.

The treatment must always be inaugurated by removal of the diseased kidney, when only one is affected, but in addition the bladder should be treated directly. He shows by a large number of specimens removed at operation and at autopsy that the infection may spread up the ureter if the lower end of this is obstructed by a lesion of the bladder. In several of his cases the lower end of the ureter or even its entire extent was diseased and the kidney showed no sign of tuberculosis. This was mostly seen on the sound side in cases of unilateral kidney lesion with consequent infection of the bladder. This entirely controverts the theory that infection never can ascend against the urinary stream. In three cases there was disease of the bladder and of both ureters, but both kidneys were free from infection. Of 75 cases of renal tuberculosis (all of which were unilateral), the bladder was sound in 28. The bladder was ulcerated in about two-thirds of the cases of renal tuberculosis and in more than one-half of the operable (unilateral) cases. The diagnosis was, at first, either nephritis, pyelitis or cystitis, and in all such cases a careful microscopic study of the urine should be made, and if it contains pus or blood, tubercle bacilli should be looked for. The presence of pus in the urine, in the absence of the usual pus organisms, is almost conclusive evidence of tuberculosis. The bacilli will generally be found if the urine is collected for twenty-four hours, the albumin precipitated, and the sediment thus obtained examined. The specimen must be decolorized with alcohol as well as acid, as the latter does not decolorize the smegma bacillus.

The only certain way to determine which kidney is affected, or whether both are diseased, is by means of ureteral catheterism. Cystoscopy may be entirely misleading. In the 37 cases of unilateral disease, both sides of the bladder were affected in 20, only the affected side in 14, and only the sound side in 3. Segregation is thus a very uncertain method. The catheterization of the ureters will ordinarily give exact information, but as has been stated, the ureter was affected in three cases in which the kidney was free, and in one of these cases nephrectomy was performed, a sound kidney being removed. In doubtful cases and when ureteral catheterization is impossible, the only safe plan is to expose both kidneys by lumbar incision and determine positively if either is free from disease. The lesion having been located as unilateral and the affected organ removed, we may wait for one or two months to see if the ulcers of the bladder will not heal spontaneously. If the vesical lesion still shows a tendency to spread, the local treatment of the bladder should be instituted.

After trying *sectio alta* with cauterization of the ulcers, applications of potassium permanganate, each of which seemed to hasten the spread of

the disease, and pyrogallic acid, which had very little effect, Rovsing adopted the use of 5-per-cent carbolic acid, and has since then succeeded in curing every case in which no advanced visceral lesions existed elsewhere. The bladder is first washed clear of pus, and then 50 Cc. of a warm 5-per-cent solution of carbolic acid is injected and retained for three to four minutes. If the fluid comes away turbid the procedure is repeated until it returns clear. A three-tenths grain morphine suppository is introduced, to lessen the pain which occurs two or three hours after the injection. This is repeated every other day until the urine remains fairly clear between, and the interval is then gradually lengthened. Treatment has lasted from one to as much as six months. No result is to be expected from this or any other treatment unless the diseased kidney is first removed.—*Ther. Gazette*, Aug., 1907.

THE TREATMENT OF PLEURISY WITH EFFUSION.—Forchheimer, in the *Journal of the American Medical Association* of January 5, 1907, in speaking of operating for effusion, says that as to contraindications, he does not believe that any exist. The dangers of removing fluid from the chest are always insisted on; they certainly can be reduced to a minimum when the operation is performed with the necessary precautions. The writer has always used the aspirator, and in all his experience has never had a bad result. When the aspirator is properly used it is as safe as withdrawing the fluid with a trocar and siphon arrangement, and much more convenient, as the flow of the fluid can be controlled and no air can enter the chest. In addition to complete asepsis, the following precautions are essential to safety: The pressure within the aspirator should be reduced to its minimum in the beginning; it is rarely necessary to increase it at any time. As the intrapleural pressure with effusion never exceeds 40 millimeters of mercury (about two inches), anything below this will succeed in aspirating the fluid. So that at first the aspirator should contain air. If the negative pressure in the aspirator be too great the lung will be suddenly expanded, which may be followed by all those unpleasant consequences which are so thoroughly understood by all of us. Very little negative pressure is necessary in the aspirator, as it is more than likely that most fluids would flow from the pleural cavity without much suction, as when an opening is made the pressure of the fluid is the intrapleural pressure.

The next precaution to be taken, and just as important as the former, consists in not attempting to withdraw all the fluid at one sitting. Aside from the fact that this is impossible, it would be unnecessary if it were possible. Furthermore, the drawing off of these large quantities of fluid at one time leads to dangerous conditions: albuminous expectoration, coughs, syncope, acute edema of the lungs, death. No rule can be laid down as to how much fluid should be removed at one time. In a number of cases the author has found that the removal of a hypodermic syringeful of serum started absorption, and the case then went on to complete recovery. Stintzing and v. Gerhardt have also had this same experience. But no one would think of withdrawing so small a quantity of fluid when there are serious symptoms which are due to compression or other causes; here the removal of a sufficient quantity of fluid to cause the symptoms to disappear is all that is called for. This may be 300 cubic centimeters, it may

be more; but under all circumstances not any more should be withdrawn than is necessary to remove all the symptoms. Absorption then will be started, and if this should not be the case another paracentesis should be done at some future time. In most cases it will not be difficult to determine when the second aspiration should be performed; when dangerous symptoms reappear, or when absorption does not take place in a few days, it is time to aspirate again. In following this method we do no harm, and we imitate the process of nature as Alexander James puts it. The author states that in neglecting this precaution the usual accidents have occurred with siphonage as well as with the aspirator.

Another precaution to be taken is that the patient be in a position which approaches the recumbent as nearly as possible. When a large quantity of fluid exists in the pleural cavity there follows compression of the lungs, the heart, and of the large blood vessels. If this has existed for some time there has taken place a process that can be called compensatory. When the pressure is suddenly removed, the circulation is suddenly changed and serious conditions may arise, in part also due to the opening of blood vessel areas that have been occluded. It is an established fact that in the recumbent position the human being can withstand changes in circulation better than in the upright. The reason for this is found in the fact that gravity has a decided effect on the circulation; if a person has a quantity of blood withdrawn from his brain on account of a sudden determination to the central organs the effect will be less in a recumbent position than in an erect position.

Lastly, the patient should be carefully watched while the fluid is being withdrawn; if he coughs violently and spasmodically, if he has a feeling of constriction or feels faint or has great pain, the operation must be interrupted. After a little while, the symptoms having disappeared, another attempt may be made; if the symptoms again appear, the needle must be withdrawn and the patient put to bed.

After the fluid has been removed it is well to keep the patient in bed and under observation for a short time. Depending on the cause of the exudation he may, if no symptoms appear, be allowed to rise in a day or two. In all cases respiratory gymnastics should be advised. In tubercular cases the after-treatment should be that of tuberculosis.—*Ther. Gazette*, Aug., 1907.

WHERE TO SEND CONSUMPTIVES.—The old idea that every patient suffering from pulmonary tuberculosis should be sent West is gradually dying out among physicians and the laity. The origin of this view probably depended upon two facts. First, the older methods of treatment employed in tubercular cases were notoriously inefficient, and the physician was usually glad to get rid of a patient for whom he could do nothing, by advising him to go West. Second, when a patient went West, it usually happened that without any intent on his part, he spent a large part of the time in the open air and thus unconsciously derived much benefit from this valuable therapeutic measure. Since the profession has awakened to the curability of tuberculosis, however, and the treatment has been placed on a scientific basis, we have come to recognize that climate is a very minor factor in the treatment and that the essential elements are fresh air, and systematic and careful regulation of the patient's diet, exercise, habits, etc. The *New*

York Medical Journal, of January 5, 1907, contains a very practical article on this question by Cobb. He thinks the most difficult problem for the physician is to decide where to send the patient of moderate circumstances.

It is not always easy to know where to send such a person to obtain proper attention. If he goes uninstructed, for example, to Denver, or to Phoenix, or Los Angeles, there is every likelihood that he will fall among thieves, and if he has but a moderate amount of money his story will run rapidly to a close. From one quack to another he drags his utterly weary legs, the disease creeping upon him in spite of the never-ceasing sunshine. Then the lack of funds begins to pinch; if he has been fortunate enough to secure a position he loses it, even boarding-houses turn him from their doors. Down the rapids of despair rushes his frail bark, and the man who thoughtlessly sent him to the West is responsible for the disastrous outcome. It would have been better for such a patient to have stayed at home.

And even though the patient has plenty of money and comes West, it is not easy for him to obtain the kind of attention best suited to his case, unless he goes to a good sanatorium. The average consumptive and his friends will not admit that he has the disease, and they nearly always try to delude themselves, and others, that he is only "threatened," or has "weak lungs." To suggest that the patient go to a sanatorium usually brings trouble for the physician, for the patient foolishly believes that to go to such an institution is to proclaim the nature of his disease. The only thing to which he will consent is to go West, but as a rule such a person is never satisfied, and it is first this altitude and that, his gaze ever westward. On he moves from one town to another, while the *tache* of the great white plague deepens upon his prominent cheek-bones and his rasping voice harshens to a croak. He little knows the tragedy written in his face as he turns from the unwelcome stare of one boarding-house keeper to another. Hotels and boarding-houses do not want the consumptive, whether rich or poor.

Now if the physician had but insisted that there be no concealment of his trouble and had placed the patient in good hands at the start there would have been at least seventy-five chances that he would have recovered. So by all means try and persuade your patient to go first to a sanatorium, or at least arrange that he be under the direct supervision of a skilled specialist who will attend to the proper details for his care. Many patients go out West and promptly lose their lives, or all chance for recovery, because they have not been taught how to care for themselves. There is everything in right living for the consumptive, and he can only learn the details of this new life under the guidance of a specialist. All scientific means to arrest the disease should be exerted early, but if the patient has not the money to secure everything needed, then by all means keep him at home, where, if he must die, he will be among friends and relatives.

However, if after careful deliberation the decision is reached to send the patient to the West, explain all the conditions, as to length of stay, expense, etc.; then fix upon the place. There is a very foolish idea widely prevalent that if the consumptive is a young man he should be sent on a cattle ranch. Of all places the ranch is the worst for him. By all means

beware of the ranch, for with thousands of cattle there will not be a drop of milk to drink; and the food and cooking! It is enough to say that the consumptive has no business there, for it requires a rawhide constitution to keep pace with the roving cowboy. And, too, don't send your case to a small town unless you know just what is there, for the accommodations and food are about on a par with the ranch. Send the patient to some well-known place like Denver, Colorado Springs, El Paso, Albuquerque, Phoenix, Tucson, or Southern California. In and around the cities enumerated, and in the cities of Southern California, there are sanatoria and skilled specialists for the special care of these cases. But don't send your patient off to hunt them up; attend to all the details yourself before allowing him to start West.

We, as a people, have done less for the consumptive than any of the great modern powers, and the reason for it, partly, is that we have grown up with the fixed idea that such cases must go to the West and have a special climate to enable them to recover. It is this wrong idea which keeps back the local sanatorium movement in the large cities of the East, where hundreds of such institutions are needed to care for that large class unable to go off to special climates. Truly, climate is the least essential of the consumptive's necessities. And so, if there be the least doubt of your patient's ability to properly maintain himself in the West, then by all means keep him at home, for the West is already overwhelmed with poor consumptives, and the sad stories of their distress make one's heart sick. But if the patient has plenty of money and is set upon it, do not hesitate to send him West, and advise and urge him to stay until he is well. And before you send him there, disabuse his delusion that climate cure is some concrete, specific thing which grows upon the sage bush, or hangs temptingly upon the cacti, which he can reach out for and take unto himself in one deep, satisfying gulp. If he would make a satisfactory and permanent recovery impress upon him that his patience must be enduring, his faith supreme.

A COMPARATIVE STUDY OF DRUGS COMMONLY USED IN URETHRAL AND BLADDER IRRIGATION.—Irrigation of the urinary tract has now become so firmly established a method in the treatment of diseased conditions that it is of interest to review the various drugs most commonly used. We may divide the drugs used in making solutions for irrigating into three classes:

1. Cleansing and mildly antiseptic.
2. Antiseptic.
3. Strongly antiseptic.

In the first class we have isotonic salt solution, boracic acid, sodium benzoate and fluid extract of hydrastis, non-alcoholic. Under antiseptic solutions: Potassium permanganate, nitrate of silver, and the organic silver compounds such as protargol, argyrol, largin, etc. The strongly antiseptic drugs would include bichloride of mercury, formaldehyde and carbolic acid.

"Normal salt solution (0.6 per cent.) is one of our most valuable therapeutic agents used for irrigating" (Heineck). It is non-toxic and the question of cost does not have to be considered. "It does not coagulate albuminous fluids and has a mild hemostatic action" (Hayem). It can be prepared with reasonable accuracy, by dissolving a teaspoonful of salt in

a pint of boiled and filtered water. The indications for the use of this valuable remedy are many. Probably its most valuable use in urology is as a preliminary douche in subacute and chronic cystitis. It is preferable that it be warmed. It can be employed to advantage for irrigating the urethra according to the Janet or the Diday methods in acute and subacute gonorrhea. In acute retention from prostatic enlargement and catheterization the residuum is generally to be replaced by a mild, antiseptic, preferably normal salt solution.

Boric acid. This well-known and commonly used drug is feebly germicidal. "Bacteriological experiments show that it has little more effect in killing germs than has salt and water" (White and Martin). It has a soothing effect on mucous membranes, and as a wash for the bladder it gives great relief in cases of cystitis. "It holds a place in bladder lavage from which it will not be easily dislodged" (Keyes). It rarely causes toxic symptoms.

Benzoate of soda. The uniformly good results obtained with this salt given internally in inflammations of the genito-urinary tract led to its use locally, it having replaced salicylic acid to some extent. It is an efficient disinfectant and germicide.

Hydrastis Canadensis. The non-alcoholic preparation having mildly astringent and hemostatic action when properly diluted, may be applied to the most delicate surfaces without irritation. It is excellent in all forms of catarrh, and is very soothing to all inflamed mucous membranes. Acute and chronic cystitis, with frequency of micturition and pain, is often entirely relieved after the use of hydrastis. When combined with other medicinal substances, such as zinc sulphate or lead acetate, it will be found to be exceedingly useful in cases of chronic gonorrhea where localized areas of mucous membrane of the urethra are in a state of chronic catarrhal or granular inflammation often spoken of as "gleet."

Antiseptics. This is the most important class to consider.

Potassium permanganate. Janet's irrigation treatment has stood the test of years, and though he has changed the details of his method of procedure many times, he still continues the use of permanganate. A solution of this salt in urethral and bladder infection, by reason of its oxidizing power, is largely employed as an antiseptic to destroy the pathogenic cocci. Permanganate in solution rapidly disintegrates; therefore it is better to purchase the drug in tablet form and make a fresh solution with distilled water when needed. It is an energetic disinfectant of the mucous membrane, and by removing mechanically and washing away accumulated secretions, makes a less favorable medium for the growth of the coccus. This drug meets the indications in the treatment of acute gonorrhea in that it is unirritating and antiseptic; does not coagulate albumin; is capable of a certain power of penetration, and nearly free from astringent properties in the strength of 1 to 10,000. "Permanganate also causes an edematous swelling of the epithelial cells, which inhibits the growth of colonies of bacteria" (Morton). It is therefore useful in treating non-specific and septic urethritis. "This drug is to the urethra what the silver salts are to the bladder" (Keyes).

Nitrate of silver. The remedy par excellence in disinfecting the urethra and bladder and lessening suppuration is nitrate of silver. Its action on mucous membranes is astringent and antiseptic. "Its astringent action is

attributed to the contraction of the blood vessels and also to the formation of a protective layer of coagulated albumin; its antiseptic properties to its action in coagulating the proteids of the micro-organisms, and partly from the specific effects of the metal" (Cushny). It is sometimes resorted to as a preventive of acute gonorrheal urethritis. About one drachm of a 1 in 30 solution is injected and is left for some little time in contact with the urethral walls. This procedure is attended with such intense pain and ardor urinæ that the nitrate has largely been replaced by the use of the newer silver compounds. In the abortive treatment, as in prophylaxis, it is advisable in all cases to employ a less irritating drug. In acute gonorrhea after inflammatory symptoms have abated under the use of boracic acid or normal salt solution the use of silver nitrate may be instituted. Other conditions in which the nitrate will be found to be one of the most trustworthy agents in urology are: Chronic urethritis, prostatitis, spermato-cystitis (after massage), and the general cystitis of enlarged prostate, stone and tumor. We generally employ a solution in the strength of 1 to 5,000 to 1 to 500 in cystitis. No drug mentioned will prove as satisfactory in this condition. As long as the urine is rendered clearer and symptoms are diminishing we know our treatment is effective. Any evidence of irritation is a signal that the dose is too strong or too frequently repeated; or it may be best to change to another remedy, or to desist from all local treatment.

Organic silver compounds. These new non-irritating remedies have assumed a place in urology which has long ceased to be an experiment. They are now regarded as specifics in the treatment of urethritis. These organic silver salts are not precipitated by chlorides nor by albumin. They have the power of penetrating into the submucosa and are non-corrosive. As preventives of gonorrhea about one drachm of a 1 per cent. solution of protargol or a 20 per cent. solution of argyrol is injected and held in the urethra five or ten minutes. If the use of these solutions is begun at the very onset, the disease will be well under control within a few days. Organic silver salts may be used in the bladder when silver nitrate is found too irritating. Protargol is employed for irrigating in the strength of 1 to 1,000, argyrol 0.5 to 5 per cent. Always use fresh solutions.

We now come to that class of drugs listed under "strongly antiseptic." These drugs have a place in urology, but as several cases of poisoning have been recorded from the use of even the most dilute solutions their popularity for irrigating purposes is on the wane.

Bichloride of mercury. This is probably the most active germicide. As this salt of mercury often produces a painful reaction, we make it less irritating by adding one drachm of sodium chloride to each pint of water. It was formerly largely employed in specific urethritis in the strength of 1 to 20,000, gradually increased to 1 to 12,000 to 1 to 3,000. Its use now is largely limited to cases of non-specific and septic urethritis which are relatively few in comparison. "It is a sovereign remedy in tuberculosis of the bladder" (Casper). In the beginning very small amounts are used, about 50 c. c., later this quantity is increased as the bladder becomes tolerant.

Formaldehyde. Commercially known as formalin, is an aqueous solution containing not less than 37 per cent. by weight of absolute formaldehyde. "It is a powerful antiseptic and disinfectant, ranking next to

mercuric chloride as a germicide" (Potter). Like mercury it is irritating and caution is advised. "Formalin solutions in the strength of 1 to 16,000 to 1 to 8,000 make an excellent medium for irrigating the bladder in preparing patients for cystoscopy" (O'Crowley).

Carbolic Acid. Phenol being one of the first antiseptic agents suggested, was at one time employed. It has now been almost abandoned in favor of other agents. A moderately weak solution has produced very severe constitutional results. This drug is used for urethral and bladder irrigations in the strength of 1 to 500.—J. W. Miller, M. D., *Internat. Jour. of Surgery*, August, 1907.

INOPERABLE SARCOMA.—Coley has now treated successfully forty-two cases with the mixed toxins of erysipelas and bacillus prodigiosus. These include seventeen round celled sarcoma, seventeen spindle celled sarcoma, two mixed celled sarcoma, one chondro sarcoma and one epithelioma. In four, which clinically were almost certainly malignant, no microscopical examination was made. At present twenty-one patients are well, after five to fourteen years, twenty-six from three to fourteen years, ten from ten to fourteen years. Other surgeons have successfully treated twenty-two round celled sarcoma, fourteen spindle celled sarcoma, three mixed celled sarcoma, three endothelioma, two epithelioma and sixteen in which no microscopical diagnosis was made.

The author believes, and this belief has been verified by other observers, that the bacillus prodigiosus has an actual curative value of its own, aside from increasing the virulence of the streptococci of erysipelas. When the red color of the bacillus prodigiosus is faint, or nearly absent, the destructive effect upon the tumor is diminished.

The initial dose should not be more than one-fourth of a minim and this should be diluted with sterile water to assure accuracy. It is advisable, when the tumor is very vascular, to give the injections at a distance from it, until the susceptibility of the patient has been discovered. After a few doses it is safe, in most cases, to inject directly into the tumor. As a rule, when injecting into the tumor, only about one-fifth of the dose used for injections remote from the tumor is required to produce the same reaction. The dose should be increased by one-quarter of a minim when given into the tumor; by one-half of a minim when injected remote from the tumor, until the desired reaction is obtained. The best results are obtained by doses sufficiently large to produce severe reactions, say, a temperature of 102° F. to 105° F. The frequency of the injections must depend largely upon the strength of the patient, some are able to bear daily injections, while others can not stand more than three or four injections a week. When successful the effect is usually very promptly noticeable, perhaps within two or three days, the tumor will decrease in size, become much more movable and much less vascular. The action of the toxins is both local and systemic, and a cure may be obtained in tumors in inaccessible regions by systemic injections. At other times the best results are obtained by alternating local and remote injections.—*Medical Record*, July 27, 1907.
J. D. ELLIOTT, M. D.

THE MANAGEMENT OF DISLOCATION AT THE SHOULDER JOINT, COMPLICATED BY FRACTURE OF THE NECK OF THE HUMERUS.—H. A. Royster treated four such injuries within seven months and from this experience believes

that fractures of either the surgical neck or the anatomical neck of the humerus are more frequent complications of dislocations than is commonly supposed. He also quotes some statistics from literature to prove this point. Three of his cases were old dislocations, from six to nine weeks after injury elapsing before he saw them, and in two of them the exact lesion was only revealed at operation. Some improvement followed in two cases and in the third an excellent result was obtained. In his fourth patient, who was seen immediately after the injury occurred, a perfect result followed an open reduction.

The author thinks an early operation is called for in all of these injuries, which can not easily be reduced by manipulation. And such manipulations should be gentle and not long continued on account of the trauma.

Open reduction of the head of the humerus is usually easily performed, and the fracture will take care of itself if the arm is put up in a proper position. The author prefers a plaster of Paris shoulder cap and some form of pad or triangle which will hold the arm in abduction. The bone may require suturing in old cases, but in fresh injuries the dressing is all that is required to hold the fragments in approximation.—*Jour. of the Amer. Med. Assoc.*, August 10, 1907.

J. D. ELLIOTT, M. D.

OPERATIONS FOR CLEFT PALATE AND THEIR RESULTS; ESPECIALLY IN RESPECT TO THE IMPROVEMENT OF SPEECH.—Hudson-Makneu describes in detail the effect of cleft palate upon speech and draws the following conclusions about operating for this condition:

1. An operation for the closure of a cleft palate should be done only when there is a fair likelihood of success.
2. It should be done only by those possessing special skill in nasopharyngeal and oral surgery.
3. When it is probable that several operations may be necessary, the parents or patient should be so informed.
4. The operation should be done as early as possible.
5. In the difficult adolescent cases the operation, after a preliminary tracheotomy, may be preferable.
6. There are two reasons for attempting to close a cleft palate, namely, to improve the general health of the patient and to increase the efficiency of the faculty of speech.
7. The general health of the patient is benefitted in two ways, namely, by improving the hygiene of the nasopharynx and the oral cavity and by improving the general morale of the patient.
8. The speech is improved by a course of psycho-physical training, in which the patient is taught first to recognize normal speech and then to make the best use of his still imperfect organs of its production.—*New York Medical Journal*, July 27, 1907.

J. D. ELLIOTT, M. D.

ETIOLOGY AND SYMPTOMS OF FISSURE OF THE ANUS.—In an article read before the American Proctologic Society, June 3 and 4, 1907, Dr. C. F. Martin, of Philadelphia, said: The fissure is usually situated posteriorly and directly over the "white line" of Hilton, due to the arrangement of the

fibers of the external sphincter and to the fact that the anal canal has less elasticity directly over that line. Most fissures start as the result of the distension of the canal by hard feces and excessive straining at stool. Those situated anteriorly are often seen after confinement, due to the pressure of the fetal head upon the perineum.

The sentinel pile is noted in most cases if the fissure has been present for any length of time. It is a simple inflammatory hypertrophy. Hypertrophy of the anal papillæ does not appear to be an important factor in the causation of fissure. True hypertrophy of the sphincters is rarely seen, but in its place we find an excessive irritability of the external sphincter.

The distinctive symptom of this disease is pain or sphincteralgia, preceded by a "pain interval" of from one minute to an hour, during which time the patient has comparative comfort. The pain is caused by spasm of the sphincter compressing the nerves in the ulcer. This contraction interferes with the perianal circulation and renders the inflamed nerves more sensitive. The "pain interval" is caused by a temporary improvement in the perianal circulation produced by the straining efforts at stool.

The constipation of fissure often precedes the formation of the ulcer, an irritable sphincter being the underlying factor in the production of this condition. The constipation increases after the formation of the ulcer due to the fear of the patient of the pain following a stool.

The treatment consists in the divulsion of the sphincters and the usual stimulating after treatment. The sentinel pile should be removed at the time of divulsion. Division of the external sphincter is not advised, for frequently it does not unite and eventually atrophies. Fistulæ, abscesses and fecal impaction are mentioned as frequent complications of fissure and call for appropriate treatment.—*Internal Jour. of Surgery*, August, 1907.

GENERAL PERITONITIS.—Mr. Mayo Robson (British Gynecological Society) believes that if operation be resorted to within 12 hours of the onset of peritonitis, the patient should always recover, and that there is a probability of this even if operation is not delayed beyond 24 hours. It is important to operate as early as possible, avoiding injury of the viscera, and not to do too much sponging. The patient should be placed in a sitting posture (Fowler's position) after receiving a rectal injection of saline solution or a transfusion. In the discussion Mr. Bedford Fenwick emphasized the importance of avoiding drainage and flushing.—*Internal Jour. of Surgery*.

THE END RESULTS OF OPERATIONS FOR CARCINOMA OF THE BREAST.—The July issue of the *Annals of Surgery* contains a symposium of nine excellent articles dealing with this subject from the pens of some of the most eminent surgeons in this country. A comprehensive abstract of these articles is not possible, but the summary given by Drs. Greenough, Simmons and Barney after a study of the cases operated at the Massachusetts General Hospital is well worthy of being republished here.

I. Out of 416 cases of primary operations for cancer of the breast at the Massachusetts General Hospital from 1894, 1903 inclusive, 376 were traced to a conclusive end result at an average period of eight years after operation.

2. Sixty-four cases were alive and well and 7 died without recurrence over three years after the operation.

3. Counting in the operative mortality, there were 320 attempts at radical cure, 67 of which, or 20.9 per cent., were successful.

4. During this same period palliative operations were performed on 56 patients (15 per cent.) and 52 cases were discharged untreated.

5. Cases in which the tumor was ulcerated, or was adherent to the skin or to the chest wall, and cases in which the axillary glands were palpably enlarged, gave notably less promising results than when these conditions did not exist.

6. No case with palpably enlarged cancerous glands above the clavicle, and no case of cancer of both breasts, was cured.

7. Medullary carcinoma was more grave than that of the scirrhus type, and adenocarcinoma and colloid were relatively of a far less malignant type.

8. The duration of the disease, other than in the individual case, exerted little influence on prognosis.

9. Extensive operations with wide removal of skin gave the greatest freedom from local recurrence. Removal of the pectoralis minor appeared to be of slight significance. Incomplete operations on early cases yielded better results than extensive operations on cases which were well advanced.

10. Recurrence in the scar occurred in less than one-half of the cases. Internal metastasis was most frequent in the lungs, mediastinum, in the axillary and supraclavicular glands, the liver and the spine.

11. Seventeen out of 88 cases, or 19 per cent. of those passing the three-year limit without evidence of recurrence, showed recurrence later, and 4 cases developed recurrence six years or more after the operation.

ITCHING; ITS SIGNIFICANCE AND TREATMENT.—L. Duncan Bulkley, in a paper on itching, read before the A. M. A. at its last session, discusses the subject in detail. He contends that itching is a clinical sign that something is wrong somewhere, either in the skin itself, or elsewhere in the system. Locality often plays an important factor in the diagnosis of an itching skin condition, for instance itching on the extensor surfaces of the extremities would suggest pruritis hiemalis, while itching across the abdomen or upper thighs would indicate scabies or pediculosis. Bulkley emphasizes the fact that careful examination and study should be made of every itching dermatose, so that possible errors in diagnosis might be obviated; he as well calls attention to the fact that it must constantly be borne in mind that specific skin lesions are very frequently associated with itching. As to the causes of itching Bulkley considers three, external, which he subdivides into miscellaneous, as mechanical, toxic, and climatic, and parasitic, which is again divided into microbic, vegetable and animal. The second group of causes is considered as idiopathic and is divided into neurotic, as reflex and functional and senile. The third group is constitutional, either autotoxic acute or chronic, or dermatopathologic. Among the causes in this classification are mentioned, harsh underwear, woolen undergarments, poisonous dyes in underwear, toxic plants, climatic changes, microbic, vegetable and animal parasites. Neurotic causes of itching may be reflex or functional, reflex when occasioned by intestinal worms, or by irritation in another distant part of the body, and functional as seen

in true pruritis and dermatitis herpetiformis. Among the constitutional causes are mentioned, autointestinal intoxication, the acid or gouty state of the system, glycosuria, jaundice, etc. Bulkley further contends that itching at first is usually only spasmodic in character, and that if restraint from scratching be practiced in the beginning of the condition, the itching will often cease and cause no more trouble. As to the causes of itching being worse at night, the essayist contends that it is due to two conditions, the condition of the person and the outside influences. As to the condition of the person, at night time there is a nervous exhaustion and the terminal nerves are more readily irritated, and as the blood is more filled with effete products, the sensitive nerve fibres are therefore more readily irritated and then again to the loss of the active control of the mind, allowing physical infirmities to assert themselves. Outside influences include the exposure to the air; the reaction after retiring, due to the chilling of the body surface, and to too warm body covering with bed clothes. With reference to the question of treatment, Bulkley suggests that the question of diet be carefully looked into and regulated. Internal treatment is divided into general, neurotic, analgesic, and hypnotic. General treatment which is usually indicated, acts well by rendering the skin less sensitive to irritants; in neurotic conditions special attention should be given to the therapeutic measures which restore the nervous system to a normal state and retain it so. In this connection Bulkley mentions, arsenic, iron, strychnine, quinine, preparations of phosphorous, cod liver oil, etc. The static and galvanic current and the X-rays are likewise often of benefit. Under the analgesic treatment the writer cautions against the use of opium and morphine, which really tend to increase and aggravate the pruritis, the patients very frequently scratching themselves during sleep produced by the narcotic, often doing much damage. Veronal has been used by Bulkley with much benefit, he as well mentions the use of the tincture of cannabis indica, and tincture of gelsemium, repeated every hour or half hour for three or four doses.

The local treatment is divided into hygienic and medicinal. Under the hygienic treatment Bulkley advises against too frequent bathing, contending that the skin is thus robbed of much of its oil, and becomes dry and harsh, which tends to keep up a pruritic state; too much friction after bathing is likewise cautioned against, as the overstimulated skin will give occasion to more or less itching. Under local treatment, the lotio calamine is highly recommended as follows pulv. calamine, dr. i, zinc oxid, dr. ii, glycerine, dr. iii, phenol, dr. ss-i, aqua calcis, aqua rosae, q. s. ad. oz. iv. Ichtyol in from ten to twenty-five per cent. solution in water or oil, will often act efficiently. The following solution introduced by Bulkley some years ago, acts well: Picis liquidæ, dr. iv, potassii causticæ, dr. ii, aqua, dr. x. The potash is dissolved in the water and rubbed up with the tar in a mortar until perfect solution is effected, This is to be diluted in varying strengths, one to ten or twenty of water, and bathed over the surface, a suitable ointment to be applied afterwards.—*Jour. A. M. A.*, July, 1907.

RALPH BERNSTEIN.

CYSTOID CICATRICES.—An ophthalmic surgeon has lately been heard to strongly favor the cystoid cicatrix in operations for the relief of glaucoma, but it should be remembered that this aids in filtration only when in some

part the conjunctiva is the only covering of the aqueous. If the iris is drawn in and completely lines the cyst it becomes impervious to the passage of fluids, not only that, but the iris is drawn forward on either side of the cyst and with its base blocks a considerable area of the iritic angle. Thus the usefulness of a considerable portion of Fontana's space is abolished, and this may be enough in itself to disturb the equilibrium of secretion and excretion, and produce glaucoma where it has not previously existed.—*The Homœopath. Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

PARAFFIN INJECTION IN THE TREATMENT OF EUTROPION.—The satisfactory results obtained by experiments made on animals, encourage the author to hope for the future treatment of some lid affections, especially eutropion. He holds the lids with a Desmarre's forceps and with a Pravaz syringe injects between the tarsal cartilage and the skin paraffin previously sterilized at the temperature of 60 degrees C. The tissues become red and swollen at first, then the symptoms of irritation gradually subside and the lids assume an everted position. The benefits of this operation consists in this, that on the external surface of the cartilage an inflammation arises, which is followed by a regular contraction in an opposite direction of that which has already taken place on the internal surface. The author has come to this conclusion by carefully examining under the microscope the lids thus injected and observing the alteration of the tissues and the ultimate phases assumed by the paraffin.—Dr. E. Moretti, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

TUBERCULOSIS OF THE SCLERA.—The Sclera being of a fibrous structure and with few blood vessels it is very resistant to endogenous and external tubercular infections. Consequently primary scleral tuberculosis is a rare affection, few cases having been recorded, to which number the author adds now three more, the subject of this article. A primary episcleral infection, according to Valude, cannot take place if the cornea and conjunctiva are intact, the tears neutralizing the virulence of bacilli, which often are found in the conjunctival sac. Slight abrasions produced especially by foreign bodies on the tarsal conjunctiva are, according to Fuchs, the origin of episcleral tuberculosis. The author distinguished three periods in the scleral tubercle.

1. Episcleral period. In the supero-lateral quadrant a round nodule appears implanted on the sclera a few millimeters from the cornea, covered by the conjunctiva, slightly injected and movable.

2. Ulcerative period. The bulbar conjunctiva covering the tumor become disturbed, thinned and finally ulcerated, and through this loss of substance a fungus growth appears. The sclera becomes infiltrated and the neoplasm comes in contact with the uveal tract which opposes great resistance to the infection.

3. Regressive period. The tumor gradually diminishes and the ulcer heals. Episcleral tuberculosis, according to the author's observation assumes the form of solitary tubercle and the spontaneous restitutio ad integrum of the organ is the usual result.—Prof. Calderard, *Clinica Oculistica.*

WILLIAM SPENCER, M. D.

ANTEPARTUM PURULENT CONJUNCTIVITIS.—Willis A. Nance reported a case observed within the first twenty-four hours of life.

Even at birth the lids were swollen and red, and a drop of yellow matter oozed from the left eye on opening the lids. One day later, the eyes presented a clinical appearance of a well defined purulent conjunctivitis of several days duration; the upper lids were swollen so as to render coercion extremely difficult, the palpebral conjunctiva was velvety and presented deep furrows, the eyes were bathed in creamy pus, and the left cornea was slightly hazy. The discharge showed gonococci in abundance. The disease ran a favorable but protracted course of seven weeks. The mother was a primipara, aged 22; labor had been brief and easy, the membrane having ruptured one and one-half hours before birth. The infant weighed eight pounds and was decidedly cyanotic.

The writer is of the opinion that the gonococci were introduced directly through the unruptured membranes of the amnion, and that the ophthalmia was immediately due to an endometritis of the same nature.—*Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

AN INFECTED EYE FOLLOWING PNEUMONIA.—Dr. John F. Woodward, of Norfolk, Va., reports the following interesting case:

The patient had been treated for pneumonia ten days previous to consulting Dr. W. for an affection of his left eye. Three days before seen his lid began to swell, and the pain in the eye was intense. This continued for two days, when he experienced some relief from the pain, but the eye was severely congested and the lid much swollen. When seen, there was decided edema of the conjunctiva and a little pus formed constantly in the inner canthus. It looked like a general infection of the eye at first, as the pus was distributed along the borders of the lids. On manipulation of the lids and eye, the pus seemed to come from beneath the caruncle. A probe passed so directly into the eye that he was convinced that the pus came from inside the eye. The eye was removed and he found that the pus started from near the central artery, and had pushed its way between the sclera and the choroid till it reached the parts just between the oracerrata and the iritic border, where it broke through and found its way out from beneath the caruncle. The vitreous was cloudy and slightly disorganized.—*Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

INTESTINAL OBSTRUCTION DUE TO GALLSTONES.—In an article on this subject, Porter (Fort Wayne) says that the points of especial diagnostic import are: A previous history of gallstone disease, often called by the patient "stomach trouble;" incompleteness of the obstruction; relative absence of tenderness, tympany, rigidity, and fever symptoms, especially early in the history of the case; persistent and frequent vomiting; tumor in the gall bladder region preceding the symptoms of obstruction, but not present with them; a migratory tumor, especially if it appears first in the gall bladder region; a tumor even if stationary, of characteristic size, shape and consistency.—*Amer. Jr. Obs.* LIV, 693.

THEODORE J. GRAMM, M. D.

OPHTHALMIA NEONATORUM.—Cragin (New York) has just reported his experience with this disease in the Sloan Maternity Hospital. He found that a premature child of low vitality is more liable to ophthalmia than one which is mature and vigorous. Babies congregated in a hospital are more liable than under the same care and under the same obstetrician in private practice. The number of cases in hospital service will vary with the class of cases admitted, but whatever treatment is employed a certain number of cases will invariably occur. In five series the results were as follows, from prophylactic treatment:

1. In 1,000 confinements, 2% nitrate of silver; cases of ophthalmia, 18; eyes lost, none; opacities, none.
2. In 1,000 confinements, 1% nitrate of silver; cases of ophthalmia 34; eyes lost, 1; opacities, none.
3. In 2,000 confinements, 5% protargol; cases of ophthalmia, 53; average per thousand 26+; eyes lost, 1; opacities, 1.
4. In 2,000 confinements, 10% argyrol solution; cases of ophthalmia, 34; average per thousand, 17; eyes lost, 1; opacities, 2.
5. In 2,000 confinements, 20% argyrol; cases of ophthalmia, 54; average per thousand, 21+; eyes lost, none; opacities, none.

During the use of the 2% nitrate of silver, the irritation of the eyes with the accompanying œdema and discharge, the so-called silver catarrh, was so great that entirely too much time was required of the nurses in applying compresses and irrigating the eyes, but it seemed also that the likelihood of subsequent infection was greater. The objection to the argyrol solution was its staining properties upon towels, sheets, etc. The bactericidal powers of the silver salts was studied, and it was found that in the solutions commonly used argyrol had practically no power over the streptococcus and staphylococcus, but with the gonococcus in 20% and 30% it was perfectly efficient. In the curative treatment the writer found argyrol of great value. The absence of irritation in strong solution, the fact that these solutions might be dropped into the eye at short intervals without injury, and the fact that these solutions were bactericidal to the gonococcus, the most frequent cause of the infection, were all in its favor, and the writer's present plan of treatment consists of frequent irrigation of the eye with boric acid solution, cold compresses, and the instillation of argyrol 30%, every two to four hours. It is well known that some of the worst cases of the disease are due to streptococcus infection, and it is hoped that in the near future a silver compound will be found which will possess the blandness of argyrol and be as germicidal to the other infecting germs. At present it will be well to use the nitrate in cases which resist the treatment with argyrol.—*Amer. Jr. Obs.* Vol. 56, 103.

THEODORE J. GRAMM, M. D.

ESERIN SALICYLATE IN INTESTINAL ATONY.—At the recent meeting of the American Gynecological Society, Vineberg (New York) considered this subject, and said that he was not able to say positively whether this agent had a beneficial effect or not as a preventive of abdominal distention. His hospital staff believed it had, and they gave it in 1-40 grain dose before the patient came out of the anæsthetic. The custom was to give $\frac{1}{4}$ gr. morphia with 1-40 gr. eserine salicylate. It was found that far less enemata were required to move the bowels in 16 cases in which eserine

salicylate was used, than in the same number of cases in which it was not used. The drug is contraindicated in cases of mechanical intestinal obstruction, and in cases of beginning peritonitis when the distention and paralysis of the intestines was due to this cause. It has been shown in experiments on lower animals that by giving eserine salicylate under such conditions rupture of the intestines might follow, and a localized peritonitis might become general. The author's personal experience seemed to indicate that there was no perceptible difference from the use of the drug in about 200 cases. In distention of the stomach it is useless.—*Amer. Jr. Obs.* Vol. 56, 83.

THEODORE J. GRAMM, M. D.

DISPLACEMENT OF THE NON-GRAVID UTERUS.—Chase (Brooklyn) has written an article in which an account of this accident is thoroughly presented. The occurrence is not at all common. The usual varieties are retroversion, prolapse, and procidentia. As predisposing causes he mentions a distended bladder; relaxation or injury of the uterine supports; a top-heavy uterus as from menstruation, subinvolution or tumor; and diseased appendages. The actual causes are but two: sudden violent muscular effort or a fall upon the back, buttocks, or feet. Reported cases, however, show that such acts as lifting, pushing, pulling, or slipping were competent causes. These cases are strikingly analagous to those of hernia with the same etiology. When the accident occurs there is frequently a distinct history of the patient having felt something give way. Pain is also a prominent and constant symptom. It is usually felt as a severe backache and may be so intense as to cause fainting. Pressure or bearing down is also a fairly constant symptom. Occasionally there is hemorrhage, especially with the rare cases of procidentia. Nausea and the undescribably sick feeling often attending gynecological cases is most apt to be present. There is shock to some degree at least. Painful and frequent urination and extremely painful defecation are later symptoms, if treatment is not prompt. The accident is recognizable by the usual physical signs. When retroversion is the form of displacement the uterus is incarcerated in the hollow of the sacrum. The tissue relaxation, so characteristic of chronic prolapse is wanting. If the displacement can be reduced within a short time the ligaments retain their elasticity, and the position remains good. If the case is seen late, the chance of a permanent reduction is more remote because the supports have then lost their tone.—*Amer. Jr. Obs.* Vol. 56, 59.

THEODORE J. GRAMM, M. D.

SODIUM CITRATE IN INFANT FEEDING.—Prentiss (Washington, D. C.) has given a resume of our knowledge of this subject. The drug was recommended by Wright in 1893, but no one took advantage of his suggestions until Poynton applied the principles laid down and published the results of his experience in 1904. Very little has been added to our knowledge of the subject since his paper appeared. Mother's milk contains .03% of lime and cow's milk .17%. It is the calcium in the milk that combines with the caseinogen to form the hard calcium-casein, and it is the excess of lime in the cow's milk that produces the harder curd which is more difficult of digestion. Sodium citrate in a solution of one grain to the ounce of milk causes the casein to curdle in much less dense masses and is more

readily digestible. Just how this result is accomplished is undetermined at present, the prevailing idea being, of course, that calcium citrate is formed. England concludes after elaborate experiments, that sodium citrate has no decomposing action upon calcium casein in the cold, but that it does exert an important physical influence on the casein of milk. Poynton has urged the employment of sodium citrate when weaning healthy children; to increase the amount of milk taken; to correct milk dyspepsia; and for the purpose of avoiding scurvy. In weaning infants it is important to keep the proteid constituents at as high percentage as possible compatible with complete digestion; this is most easily done by adding sodium citrate to cow's milk that has been brought to the proper composition. The drug seems to enhance the action of pepsin by breaking up into sodium chloride and citric acid. It has been proved that not only can richer proteid milk be digested with its aid, but a larger quantity can be taken and assimilated. Deviation from the normal digestion of casein is one of the most common digestive disturbances in infancy, and symptoms arise which show definitely that the percentage of casein is too high, or an alteration in the coagulation has taken place with the formation of dense curds, which prevents the gastric juice from preparing it for the intestines. In such cases sodium citrate is of especial value. Fresh cow's milk is the best preventive and cure of scurvy. Sodium citrate does not remove any of the natural constituents of the milk, nor does it render any one of them unfit for use. It is to be administered by at first giving one grain to each ounce of milk in the mixture. If curds continue in the stools or if vomiting or regurgitation of curdled milk persists, increase the amount to two grains or even three grains in bad cases. When the patient improves, the amount of drug should be diminished to one-half or one-quarter grain or stopped entirely. The most convenient way to prescribe the drug is in solution, so that each teaspoonful will represent the amount to be added to each ounce of milk.—*Amer. Jr. Obs.* Vol. 55, 809.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

APHORISMS.

(*The Clinical Reporter.*)

Look—(before you prescribe *Lachesis*) at the neck of a patient who complains that he cannot bear a tight collar—you may see a *goitre*.

Look—into the eyes of a patient who complains of motes disturbing his vision—you may see a beginning *cataract*.

Look—into the nose of a patient who says he has chronic catarrh—you may see a *polypus* or *hypertrophied turbinate*.

Look—into the rectum when a patient (especially a middle aged or old patient) complains of frequent attacks of diarrhœa, sense of fullness and straining at stool—you may see a *cancer*.

Look—into the rectum of a patient who is passing mucus and blood per anum—you may see a *polypus*.

Look—into the rectum of a patient who says he has hæmorrhoids or prolapsus of the rectum—you may see a *cancer* or a *polypus*.

Look at the inguinal or femoral regions of a patient who says he or she has swollen glands in the groin—you may see a *hernia*.

Look—into the ears of a patient who tells you he has catarrhal deafness—you may see a *polypus*, a *plug of wax* or a long forgotten *foreign body*.

Look—into the vagina of a patient who complains of profuse or irregular menstruation—you may see a *cancer* of the *cervix*.

Look—into the urethra of a patient who complains of frequent or painful urination—you may see a *caruncle*.

Look—at the feet of a patient who says that six doctors have diagnosed “rheumatism of his feet”—you may see a *flat-foot*.

Look—at the spine of a child who is round shouldered—you may see a *curvature*.

Look—at the prepuce of a boy whose mother complains bitterly of his nocturnal enuresis—you may see a *phimosis*.

Look—into the nose of a child who does not keep up with other children of his age at school—you may see that he is air-starved from *adenoids*.

Look—into the mouth of a patient who says he has a “torpid liver”—you may see some *carious teeth*. Y.

DIAGNOSIS—ITS FUTILITIES AND ITS IMPORTANCE.—By J. B. S. King, M. D., Chicago. . . . In order to protect myself from opprobrium, let me state plainly that I regard diagnosis as one of the fundamental and indis-

pensable departments of medicine, and I would not like to be understood as decrying it, or as characterizing it other than as an important and necessary science. . . .

In the experience of every old practitioner the diagnosis and the prognosis have been proved false by the subsequent history of the patient with mortifying frequency.

The reasons for these imperfections are not difficult to discover; in the first place, disease is not the concrete entity that nosological with arbitrary names tries to make it. There is a tendency in the human mind, when a thing is named and the name is mastered, to rest content; *to be satisfied with the term as though that were the thing itself.*

It is the glory and the strength of homœopathy that it cognizes only things heard and seen and makes them—*these real things*—the basis of treatment.

It is the degradation and ruin of all other systems of medicine that their principle is to reason out a hypothetical abnormal state based upon another hypothesis of normal action, and to make this—*this unreal suppositious thing*—the basis of treatment.

It seems to be more agreeable and consentaneous to human facilities *to predicate a state and then treat that state* than, with a mind unbiased by hypothetical ideas to observe existing symptoms and treat them. The inevitable tendency of this is to progressively reduce the number of remedies used, to a routine remedy for each diagnosis. This is shown in Prof. Bakody's book, in which he reaches the conclusion that phosphorus is the only homœopathic remedy needed for chronic diseases of the lungs. . . .

Here is a case for the specialists: A soldier with weak eyes, interfering with target practice. Photophobia, has to wear colored glasses in the sun. Very near-sighted, cannot discern an object as large as a man at a distance of 1,000 yards. An ordinary bull's eye, second-class target, he fails to see at 600 yards. Eyes sore and heavy on arising in the morning, have to be coaxed for two or three minutes before they will open properly. Hard task to read at night; if effort is made to read letters and words they ache fearfully. Bathing with cold water strengthens them for a time. Finally, and chiefly, he cannot look a person in the face for thirty seconds, as his eyes seem to draw out of the sockets in some strange way.

The specialists could, no doubt, make out a diagnosis of this case, but could they cure it, as was done?

Glonoin, twice daily, for fourteen days, produced the following results. I quote his letter:

"I can truly testify that my eyes are very much stronger and clearer in vision than before taking the powders. I do not feel any aching from the eyelids as I used to, when too much exposed to the sun. A bull's eye target of twelve inches in diameter at 500 yards seems much clearer than it used to."

Three months later:

"There is no longer any pain attached to the eyelids; the frequent blood-shot appearance of the eyes has disappeared."

Lieutenant Butts, in whose company the patient was a corporal, writes:

"His sight seems a great deal better; he can see to shoot at 400 yards, whereas before he could not see to shoot at 200."

With these excellent cases from Dr. E. W. Berridge, I rest my proposi-

tion that diagnosis is important, but it has imperfections and futilities, and *that it is never more futile than when made the basis of the prescription.—The Medical Advance.*

[The italics are ours—J. H.]

CARCINOSIN.—Margaret Beeler, M. D. The following suggestions concerning this remedy are from lectures by Dr. John H. Clarke, of London, England:

Carcinosin is one of the newer nosode remedies prepared from the products of disease, as in the case of other nosodes. This is from carcinoma, and is used in its treatment and cure.

Proving has been made, recorded and verified. It is claimed the carcinosis acts favorably and modifies all cases in which either a history of carcinoma can be elicited, or symptoms of the disease itself exist.

Most cases coming for treatment have been diagnosed and pronounced incurable, but prefer medicine to an operation, though no claim has been advanced to cure carcinoma in its last stages.

Carcinoma of the mammary glands is that form in which Dr. Clarke seemed to have his best success, many cases having been very severe, with great pain and induration of glands; several cases followed operation and had wound still unhealed and discharging freely. All had the so-called "cancerous cachexia." Carcinosis administered in the 30th or 200th potency, a dose each night or once a week, according to the severity of the case, produced wonderful and rapid changes, first noticeable in the wound itself, which would assume a more healthy appearance and become less painful, the glands would become softer and later quite painless, the discharge would slowly cease and the wound heal. In many cases the patient would be quite restored to health.

When the disease affected the uterus, the symptoms of offensive discharge, hemorrhage and pain were greatly relieved, and after the medicine had been continued some time examination showed more or less favorable changes in the growth itself.

If other organs of the body were affected by the disease, pain, always an important symptom, was relieved by the continued use of the remedy.

Indigestion, taking the form of accumulation of gas in the stomach and bowels, was often a prominent symptom in the cases of carcinoma reported.

Rheumatism, affecting various parts of the body, was also frequently noted.

These latter conditions, though not considered of first importance, were greatly modified and apparently cured while treatment for carcinoma was in progress.

Some patients were entirely cured by the use of carcinosis only; others required continual treatment with such medicines as bufo, conium, phyto-lacca, sepia, sulphur, thuja, the calcareas, etc. All made the most apparent gain while carcinosis was administered.—*Progress.*

A REMARKABLE DIETARY.—An esteemed contemporary says:

"The following dietary, subject to modifications, will convey some idea of how consumptives with good digestion should be fed, if under weight:

Breakfast.—7.30 a. m. Fruit, cereal, coffee, toast or muffins, one raw egg, two glasses of milk.

Lunch.—10 a. m. Two raw eggs, two glasses of milk, crackers.

Dinner.—12.30 p. m. Soup; rare roast beef, or lamb, mutton, chicken, turkey, steak, chops, sweet-breads, or raw chopped beef; potatoes, two vegetables chosen from among stewed tomatoes, corn, peas, beans, squash, spinach, beets, onions, turnips, asparagus, cauliflower, celery, etc.; salad; baked or stewed apples or a simple pudding, custard, cornstarch, farina, rice, junket or bread pudding.

Lunch.—4 p. m. Two raw eggs two glasses of milk, bread or cheese sandwich.

Supper.—6.30 p. m. Hot or cold meat, bread, milk-toast, fruit or sauce, tea, one raw egg, and two glasses of milk.

Lunch.—9 p. m. Two glasses of milk."

Here the menu ends abruptly, and the reader is bound to speculate over obvious omissions. What shall the patient eat at 12 midnight, 3 a. m., and 5.30 a. m.? If the stomach must have no rest by day, is it safe to let it lapse into lazy inaction at night? Yet what business has a "consumptive" to have a "good digestion" like this, anyhow? Is it to fatten lungs or liver?

J. H.

TO MAKE A VIGOROUS RACE.—According to a recent dispatch, Associated Press, a Boston doctor advocated, in effect: "If the baby is a weakling, kill it." Osler, if the newspapers do not lie, which they do sometimes, advocated the killing of all men over sixty years of age. There you are! The homœopath tries to *Cure*. That is the difference. If all the "weaklings" were to be "killed" the community of the world would be fearfully lessened. Then there are weaklings and weaklings—some of them physically strong but mentally weak. Which shall we kill?—*Hom. Envoy*.

PASSIFLORA INCARNATA is as yet unproved; but . . . seventeen cases cured by passiflora are recorded in our journals, between 1888 and 1905, of the following morbid conditions: Insomnia from alcoholism, the morphine habit, valvular heart disease, nervous erethism, and extreme exhaustion; chorea (Troy, of Delaware, U. S.); tetanus, both traumatic and idiopathic, in man and in horses (Drs. L. and J. H. Phares, Newtonia, U. S.); convulsions in children and in adults (Walters, Brooklyn); irregular and rapid breathing due to medullary irritation. Various neuralgias and headaches; dysmenorrhœa, enlarged prostate, gleet and gonorrhœa in females, nervous cough; angina pectoris (Adolphus); sciatica (C. N. Ray, Calcutta); erysipelas (Troy, Phares, U. S.); spinal meningitis (Ed. *Cal. Med. Journal*); neurasthenic spinal hyperæsthesia and coccygodynia, with pain in rectum (Adolphus); delirium tremens (D. C. B. Dunlevy, Walters, U. S.).—J. Murray Moore, M. D., M. R. C. S., in *Journal of the British Hom. Soc.*

THE PHYSICAL CONDITION OF WEST POINT GRADUATES.—There is a widespread, if not universal, impression among both physicians and laymen that the physical and nervous condition of West Point cadets is about as near perfection as human ingenuity can make it. They are under absolute control; their food, exercise, clothing, studies, and almost every detail of life, are matters of minute regulation; the prevention of disease is given most careful consideration, and the least symptom of illness is brought

under the control of skilled physicians. Excepting minor mild outbreaks of measles or mumps, or some such imported infection, the history of the Academy is said to be devoid of any serious sickness, much less of any epidemic.

Nevertheless, it is well to take occasional stock of our fixed opinions, and find out if they are really based on facts. All professions have had occasion to reverse themselves. It was only yesterday that we sent away our rich tuberculosis patients every winter, but now we shamefacedly confess that they improve most in our winters, and least, or not at all, in the summers, and that we were formerly sending these invalids away from the conditions which cured them. West Point is a national institution of vast importance, and everything involving its welfare is deserving of the widest publicity. If there are any errors of management they must be known and corrected, and the responsible authorities will no doubt give suggestions the consideration they deserve.

The correspondent, whose letter is published in another column, has touched upon several matters which have received more or less attention in recent years. It is well to pause and think over his suggestion that the training at West Point is too strenuous for immature bodies. The lean, fine-drawn athlete does not receive the indorsement from the medical profession he once did, for there is too large a proportion of life failures among that class. The untrained often succeed because they are unstrained. The suggestion as to insufficient sleep is vital and deserves consideration, for surely such boys need more than they get. It is difficult to judge of the success of West Point graduates, because so few ever have an opportunity for distinction, but it is strange, nevertheless, that we hear of such a small percentage who do distinguish themselves. Non-graduates filled the public eye during and since the Spanish war, and some of them have the reputation of being great men, in spite of much criticism as to their lack of military training in youth. Was this fact really in their favor?

The methods of West Point are essentially those of laymen. Until comparatively recently the medical officers were never consulted as to such matters. If there really is a condition of strain, either physical or nervous, as a result of an overstrenuous life of these growing and immature boys, it ought to be known and remedied. The matter deserves investigation, for mere denial will not suffice—particularly denials from laymen who do not understand what is meant by nervous exhaustion or overstrain, which may exist even if there is fine muscular development.—*Medical Record.*

PYROGEN.—By S. H. Boynton, M. D., Los Angeles, Cal. It is to be regretted that homœopaths do not, as a rule, thoroughly try our new remedies. The purpose of this short article is to call the attention of my colleagues to the pathogenesis of a remedy—a nosode—that has received too little attention. It possesses merits that should place it in every homœopathic pocket-case, and when once used according to its indications will ever after be relied upon as valuable aid in the cure of the sick.

I was first impressed with its worth by reading its symptomatology and the comments thereon by our compiler, Dr. H. C. Allen. He says, in all cases both puerperal or surgical, sapræmic or septicæmic, in diphtheria, typhoid conditions—when the best selected remedy fails to improve—think

of pyrogen. Its keynote is its peculiar odor. When once you have made its acquaintance you may never forget or mistake your remedy.

Horribly offensive, like rotten carrion. Like psorinum, it may dominate every organ or portion of the body—tongue white or brownish, dry, with sickening sweetish taste, fetid, and tasting like pus, as from an abscess of the teeth. Perspiration fetid, smells like carrion (Psor.). Fetid smell of feet (Sil.). Vomiting, stercoraceous, with same offensive odor (Psor.—Carb. ac.). Diarrhœa, horribly offensive (Psor.); or else constipation, with discharge of large black lumps, with the above odor. Menses, *horribly offensive, lasting but a day, followed by a leucorrhœa of the same peculiar odor.* Septic fever following abortion or confinement. Lochia, thin, offensive (Nitr. ac.). *The odor permeates the whole room; cannot destroy it by powerful disinfectants; will not wash off from hands.* Pulse is abnormally rapid, and out of all proportion to temperature. (All the symptoms italicized I have verified.—S. H. B.)

Such, in brief, is a concise summary of the leading characteristics of this remedy, and they certainly speak in unmistakable terms and declare its worth as a reliable agent in all cases, putrid or malignant.

Pyrogen has a strong affinity for carbolic acid, nitric acid, and psorinum. It has a close relationship also to Carb. veg., from which it differs in the absence of the profound prostration. The malignancy of pyrogen is sub-acute though sudden, that of Carb. veg. is profound and the result of causes of longer duration than those of pyrogen.

It differs from carbolic acid, in that carbolic acid is indicated, in surgical cases, when there is much laceration, profuse discharge, smelling badly, like decaying flesh.

It differs from psorinum, in that it lacks the open-air aggravation, dirty skin, and while psorinum, like pyrogen, must be thought of in cases of protracted acute troubles, the odor of the one is not the odor of the other, lacking the penetrating, sickening smell that characterizes pyrogen.—*The Pacific Coast Journal of Homœopathy.*

IODUM.—Almost constant urging to urinate, especially at night, but little urine being voided. This effect is not indeed constant, for sometimes the secretion of urine is strikingly increased, and in such a case the urine is of straw color and of thin, watery consistence. But the rule is that only little urine is discharged, and this small quantity is of yellowish-green color, of turbid appearance, and has a strongly ammoniacal smell. After standing a short time there is a compact whitish mass formed as a sediment, a slight formation of clouds, no circle.—*Medical and Surgical Reporter.*

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

COMPARATIVE STUDY OF THE SENSORY AREAS OF THE HUMAN CORTEX.—Santiago Ramon y Cajal, Professor of Histology and Rector of the University of Madrid, was one of the five foreign professors who took part in the decennial celebration of Clark University, a great American institution of learning. He was selected as one of the most eminent available scientific men in their respective lines in Europe, and delivered his address in French. Among other things he said, that he limited his ambition to present a modest analytic contribution to our knowledge of the microscopical structure of the sensory centres of the human cerebral cortex. "This anatomical study of the sensory areas of the cortex, at the present state of our knowledge presents points of special interest, since, as you well know, neurologists who have interested themselves in the histology of the brain are divided at present into two camps, the unicists and the pluralists.

"The unicist doctrine, proclaimed by Meynert and upheld quite frequently by Golgi and Kölliker, supposes that all regions of the cortex possess essentially the same structure, functional diversity being due to diversity of origin of afferent or sensory nerves. This amounts to saying that cerebral specific energy of nerves is the necessary effect of the particular organization of each sense as well as the special character of the stimuli received by the peripheral sensory surfaces, skin, retina, organ of corti, etc.

"The pluralist doctrine, upheld recently by Flechsig, without rejecting the particular influence of connections with different nerves, maintains that diversity of function result also from the particular structure of each cortical area. It is this latter opinion, as we shall presently see, that presents a closer agreement with the observed facts. In fact, my researches tend to prove that the topographical specialization of the brain depends not only in the quality of the stimuli analyzed and gathered up by the sensory mechanisms, but also on the structural adaptations which the corresponding cerebral areas undergo; since it is very natural to suppose, even if one were to form an apriori judgment, that the cortical areas connected with the special senses of sight and touch, which form exact images of the exterior world with fixed relations of space and intensity, have by accommodation to the stimuli received an organization different from that existing in cortical areas attached to the chemical senses of taste or smell, and from that which is appropriate to the chronological sense of hearing, which gives only relations of succession, free from every special quality." We may add that if there exists in the human cerebral cortex, as Flechsig supposes, besides the sensori-motor centres, other regions, associated centres, characterized by absence of direct sensory or motor connections, it seems very natural also to associate to these important regions of the brain, with which are connected the highest activities of psychic life, a special

organization corresponding to their supremacy in the hierarchy of functions."

"But we must not carry to an extreme the structural plurality of the brain. In fact, our researches show that while there are very remarkable differences of organization in certain cortical areas, these points of difference do not go so far as to make impossible the reduction of the cortical structure to a general plan. In reality, every convolution consists of two structural factors: one, which we may call a factor of a general order, since it is found over the whole cortex, is represented by the molecular layer and that of the small and large pyramids; the other, which we may call the special factor, particularly characteristic of the sensory areas, is represented by fibre plexuses formed by afferent nerve fibres and by the presence at the level of the so-called granular layer of certain cell types of peculiar form. But before proceeding to outline the general conclusions of an anatomico-physiological order, that result from all our researches taken together, permit me to present very briefly the facts of observation.

"*Visual Cortex*.—The minute anatomy of the visual cortex (region of the calcarine fissure, sulcus cornu lobulus lingualis) has been already explored by several investigators, among whom we may make particular mention of Meynert, Vicq d'Azyr, Gennari, Krause, Hammarberg, Schlapp, Kölliker, et al. But their very incomplete researches have been performed by such insufficient methods as staining with carmine, Weigert-Pall method, or that of Nissl with basic anilines—methods which, as is well known, do not suffice at all to demonstrate the total morphology of the elements and the organization of the most delicate nerve plexuses. They led, however, in spite of the difficulties which stood of these first analytical attempts, toward a precise differentiation of the visual cortex from other regions of the brain. At the outset two characteristic differences attracted the attention of the first investigators into the structure of the visual cortex: first, the existence of a very thick stratum of granules, subdivided into accessory strata by laminae of molecular appearance; and, second, the presence in the intermediate layers of the cortex of a white lamina formed of medullated fibres—which lamina may be seen with the unaided eye. This lamina, appearing in cross-section as a white line, has been named, in honor of the writers who first described it, the line of Gennari or Vicq d'Azyr.

"For the sake of brevity, we shall omit a detailed description and discussion of the various layers admitted by the authorities on this region; suffice it to mention in order the eight layers described by Meynert for the human cortex: First, molecular; the second, layer of small pyramidal cells; third, layer of nuclei or granules; fourth, the layer of solitary cells; fifth, layer of intermediate granules; sixth, layer similar to the fourth, containing nuclei and scattered cells; seventh, deep nuclear layer; eighth, layer of fusiform cells. We may also mention the arrangement of layers recently described by Schlapp for the occipital cortex of the monkey: (1) Layer of tangential fibres; (2) layer of external polymorphic cells; (3) layer of pyramidal cells; (4) layer of granules; (5) layer of small solitary cells; (6) second layer of granules; (7) layer poor in cells; (8) layer of internal polymorphic cells.

"The investigations which I have made on the human cortex, as well as on that of the dog and cat, by both Nissl and Golgi methods, have led me

to distinguish the following layers: (1) Plexiform layer (called molecular layer by authors generally and cell-poor by Meynert); (2) layer of small pyramids; (3) layer of medium-sized pyramids; (4) layer of large stellated cells; (5) layer of small stellated cells (called layer of granules by the authors); (6) second plexiform layer, or layer of small pyramidal cells with arched axon; (7) layer of giant pyramidal cells (solitary cells of Meynert); (8) layer of medium sized pyramidal cells with arched ascending axon; (9) layer of fusiform and triangular cells (fusiform cell layer of Beynert).

"You see that we have modified current nomenclature by introducing terms which call to mind cellular morphology. For we believe that such trite expressions as 'molecular layer,' 'granular layer,' must be banished once for all from scientific language, and they must be replaced by terms which point out dominant morphological characters in the nerve structures of each layer or some interesting peculiarity relative to the course and connections of the axis cylinder processes. The number of layers could be easily increased or diminished, because they are not separated by well-marked boundaries, particularly in Nissl's preparations. Thus the number of layers which I adopt is somewhat arbitrary. By distinguishing, however, nine layers, I have followed a criterion of individualization which seems to me the most convenient and suitable for my exposition of the cortex as a mechanism composed of elements at a certain level which differ in special morphological features from those of neighboring levels. Besides, the number, extent, and size of cells in these layers vary a little in the different median occipital convolutions, as does also the degree of definite nidification, according as we study the convex or concave aspect of the gyri. Our description relates generally to the cortex of the margin of the calcarine fissure, the region where structural differentiation of the visual cortex is most pronounced."

(To be continued.)

DR. M. C. THURSH, at the recent Medical Convention in Atlantic City, solemnly declared that the only barriers that cause homœopathy to flourish, would be removed the day his allopathic brethren learn to make their own potions palatable. One can hardly tell what is more amusing, his confession, or his magnanimity in allowing us to flourish so long with such an effective remedy at hand. But perhaps the task is not so easy on account of poor teachings and deep-rooted habit. Moreover, such sudden changes demand abnegation, the acknowledgment of past errors, and above all, one must know how to make these changes. At any rate, it has taken the distinguished physician a long while to find out the means to arrest our steady progress.

DR. E. FORNIAS.

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THE ANNUAL PRESIDENTIAL ADDRESS DELIVERED BEFORE THE
AMERICAN INSTITUTE OF HOMŒOPATHY.

BY

EDWARD BEECHER HOOKER, M. D.

(Delivered at Jamestown, Va., June 17, 1907.)

THE old New England divines were accustomed to preach sermons of not less than one hour in length beginning with firstly and ending with ninthly or tenthly. You will not be obliged to listen to a sermon to-night, yet my discourse will resemble it in this much, that it naturally divides itself into three distinct parts, and you will therefore have to listen to a firstly, secondly and thirdly, and no more; and I can further relieve your minds by stating that the discourse will be not more than one-half of the orthodox length.

It will resemble a sermon in another respect, in that you will have to hear some things which you may not like, or at least with which you may not agree. I do not conceive it to be the duty of the President, or good policy even, to lay before you only those subjects which are agreeable and which redound to our own glory. I intend to state my convictions based upon facts and events as I see them. And whether or not you agree with me, approve or disapprove, I ask you to believe that I am attempting to see clearly and most of all to speak with sincerity.

I shall first call your attention to those matters which are of interest to the whole medical profession, without regard to school or therapeutic belief; secondly, to the relations existing between the Old School and ours; thirdly, to matters pertaining especially to Homœopathy and to the Institute.

In no department of medicine has there been greater progress than in that of prevention of disease. Sanitary science has made immense strides and there is no field of medicine which gives greater promise of further advance than this same field of prevention. The subject is a wide one and the whole evening could easily and profitably be spent in its consideration. It is therefore impossible in this address to do more than briefly touch upon salient points. The thoughtful sanitarian not only attempts to prevent disease under conditions which exist to-day, but he looks forward hopefully to the future, seeing with prophetic eye a condition of society in which prevention shall begin for the poor, as it does now for the rich, at the birth of the child. Recent investigations have to a large extent revolutionized our ideas in regard to the health and vigor of children at birth. It used to be believed that the children of the well-to-do and of the rich were born better nourished and more vigorous than those of the poor, the last, it was believed, being handicapped by an inheritance of disease and malnutrition which the children of the more fortunate parents escaped. It is, of course, beyond dispute that all children are not born equal, that they vary in size and strength, but it used to be believed, as I have said, that the children of the well-to-do and of the rich came into the world without the handicap of weakness and ill-health which it was supposed were the inheritance of the poor. Recent accurate investigations, however, have demonstrated that the children of the poor—even of the very poor—enter upon life as well nourished and as vigorous as those of the rich. The malnutrition and disease which are too often their portion in infancy come not from inheritance but from poverty, ignorance and neglect operating after birth. If, therefore, we can devise means by which the children of the poor shall be better nourished we shall have made a long step in the prevention of disease. Unfortunately this is at present a matter of great difficulty during the very first years of life, but when the child becomes old enough to attend the public schools, his nutrition can be looked after just as well as the development of his mind, and indeed

his mind cannot be properly developed, he will be dull, apparently stupid, make slow progress in his studies and fail to get the benefit of the education which the State provides for him, if he is not well nourished. It is, therefore, the duty of those having charge of public education to see that every ill-fed child attending the public school has, at the very least, one nourishing meal every day. This is not socialism any more than public education is socialism; it is simply carrying further the fundamental idea that it is the business of the State to train its children so that they may become good citizens, for the safety of the State depends upon the intelligence and probity of its citizens.

Along the same line, further on in childhood stands the problem of child labor, and the time will surely come when there will be no State in the Union in which children shall be allowed to labor to the detriment of their schooling, until they are fourteen years of age at the very least. The evil of child labor is not confined to any one State or group of States, for it exists to some extent in every State, and no section of the country can justly claim to be free from it. While this is a national question, yet I am convinced that each State must settle it for itself. There is a tendency to-day to turn over to the national government various duties which were heretofore performed by the States. It is not necessary to go into particulars for the trend of thought is so well known, and the tendency of the national government to regulate matters which have never before been regulated by it, that no specifications are needed. This expansion of national power will, in my opinion, prove to be of inestimable benefit to the country, if it is not carried too far and is kept within constitutional bounds, for it cannot be gainsaid that there are many problems which are too difficult to be solved by the States alone and whose only solution is to be found in national control or regulation. I believe, however, that the question of child labor is not one within the scope of the national government, and that it should be left to each State to regulate for itself. Even though the evil exists longer, it is better that public opinion in each State should be educated to such an extent that child labor will no longer be tolerated. As an illustration of the universality of the evil, a careful and conscientious investigator made the attempt to use no clothing whatever in which the hands of childhood had been employed in labor, and as a result of this inves-

tigation he found that he would be absolutely obliged to limit his wearing apparel to costly furs, costly gems and eye glasses.

There is another line of prevention in which it is imperatively necessary that there should be national control. In the past the prevention of contagious disease and the abatement of nuisances has been under the charge of local and State boards of health whose authority ceased at the borders of municipal and State lines. Epidemics, however, have no knowledge whatever of State lines and the germs which carry disease cross these lines and pass from one State to another. It is evident that State boards of health in times of serious epidemic involving several States, are unable to meet the requirements of the situation, and it is equally evident that there should be national control of some kind. Our railroads run from one end of the land to the other, crossing State after State—there should be a uniform system of railroad sanitation. Our great rivers separate States from each other, touching many in their course, and a nuisance having its origin in one State is liable to be a serious menace to the inhabitants of other States below it. There is no adequate way to control such epidemics and abate such nuisances except by national control. It is, therefore, imperative to the health of the nation that there should be a national bureau of health. It is not necessary that there should be a national board of health or that the official in charge should have a seat in the cabinet, but it is absolutely necessary that in some part of our national government there should be a national bureau or department of health, having power to regulate sanitary matters which are beyond the powers of the various States to manage and which can therefore be more effectively taken care of by the national government.

While considering the subject of sanitation it is well to call attention to the fact that very few of the graduates of medical colleges, except those educated in the army and navy, are trained sanitarians. With the great development of sanitary science has come a corresponding need for real sanitarians, and I believe the time is coming when men will educate themselves to be sanitary experts, and devote their whole lives to the prevention of disease. Not only is this necessary in the broad field of national sanitation, but it is equally necessary in the more limited but very important field of local sanitation. In my opinion every village and city in the Union should

have a sanitary officer, or a corps of officers, according to their population, who should devote themselves exclusively to the prevention of disease and not engage in private practice at all. They should be paid such salaries that the office would command men of the highest ability, and their tenure of office should be such that a man could devote his life to this field of endeavor feeling secure in his position, and having to give no thought to means of livelihood. This ideal condition is easily possible in cities, and it is by no means impossible for rural communities; for if a single community were unable to support a sanitary officer who should give his whole time to sanitation, a group of villages or small towns could unite and employ such an officer with great advantage to themselves. This would work to the advantage of the community—be it large or small—as well as to the benefit of the whole medical profession, for sanitary officers devoting their whole time to their public duties would render more effective service and would not compete with the members of the medical profession dependent upon private practice for their livelihood.

The question of medical education is always before us, and in regard to it, as might be expected, there is diversity of opinion. There are those who believe that no one should begin the study of medicine until he has received a college education; there are others who are of the opinion that such a requirement is unnecessary and that it would too greatly restrict the number of physicians, that it would indeed ultimately confine the medical profession to men of wealth who could afford to delay the hour of bread winning until they are twenty-six or twenty-seven years old. There can be no diversity of opinion in regard to the necessity of a proper preliminary education before the study of medicine is begun; the only difference is in regard to the extent of that education. I am sure that we should insist upon a good high school education as the minimum requirement needed, it may be wise to even raise the minimum somewhat and require the equivalent of the first year of college education. I believe that no young man is qualified to begin the study of medicine until he is at least eighteen years old, whatever may have been his previous studies, indeed I am not sure but that nineteen years would be the preferable age. The American Medical Association is advocating the equivalent of the first year of college and legislation has been introduced in a number of States for the pur-

pose of establishing that standard. I believe that in the greater part of medical legislation thus far enacted by the various States we have made mistakes which it will be difficult to correct. The main effect of medical laws has thus far been to require an examination from all educated physicians, but to allow all sorts of healers to follow their calling without any examination or registration whatever. It is true that legislation has to some extent diminished the number of quacks but it has not touched at all the great army of so-called healers who do not use drugs or employ surgical procedures. In my opinion the definition of the practice of medicine should be so broadened as to include every method of treatment, no matter what its theory or the means employed, whether physical or mental.

Diagnosis is as much a part of the physician's duty as the administration of drugs or the employment of any method of healing. The contagious and infectious diseases form such a large part of the sickness which requires treatment that it is imperative that every kind of practitioner shall be able to make a diagnosis, no matter what his method of treatment. The protection of the community demands that everyone who attempts to treat disease shall be able to discriminate between those diseases which may be communicated to others and those which are not contagious. This knowledge cannot be obtained without a medical education. It is not only the physician's duty to be able to make a diagnosis in contagious diseases but it is equally important that he should be able to discriminate between those diseases which do not require surgical treatment and those in which surgery may be the only means of saving life. And not only must he be able to thus discriminate, but he should be able to know when surgery is needed, for it is only too well known that delay in such cases is often fatal. These observations are preliminary to the statement that it is my opinion that every person who attempts to heal, and who makes a charge for his services, no matter what his method whether physical or mental, should be registered, and that before he is allowed to register and to be licensed to practice he should be obliged to possess a medical education and undergo an examination. I shall not attempt to work out here the details of such a scheme which I admit is a most difficult one, but I believe it to be possible and to the great advantage of the medical profession and of the public.

It would require a high degree of courage to enter the do-

main of surgery for the purpose of advising surgeons in regard to their fees, and I shall not attempt to do so, but a few words concerning principles of charging and the disproportion existing between the fees which physicians and surgeons receive can hardly be out of place. The fees of the surgeon are based upon his ability, his reputation and position, the difficulty and gravity of the operation, the locality in which he lives, and last but by no means least, the wealth of the patient. The large fees which eminent surgeons in our great cities receive are in the majority of cases undoubtedly well earned and there is no valid reason why the surgeon should not place a high estimate upon the value of his services and insist upon a large fee for his operations. Such a course is honorable, but I do believe it to be beneath the dignity of the medical profession and not strictly honorable to regulate the fee wholly, or in large part, by the wealth of the patient. Besides, bleeding a patient has long been considered bad practice. I believe that every surgeon should set a maximum fee for an operation and no matter how great the wealth of the patient, should not exceed this maximum which he has established. Of course he will many times operate for less than his maximum, but that is a different matter. Not long ago I read a discussion about the fee which a great surgeon in one of our large cities charged for operating in a case of appendicitis. The patient was the son of a very wealthy woman, and the surgeon was a great surgeon, he admitted himself, his brother surgeons admitted it, and there is really no doubt that he was a distinguished man and an exceptionally brilliant operator. His fee for this operation was five thousand dollars. The mother of the boy appreciated the value of his services, admitted that the case was serious, and that the operation was skilfully performed, yet she contended that five thousand dollars was too large a fee. The surgeon in reply went into some detail and stated that he charged two thousand dollars for the operation itself and subsequent treatment and two thousand in addition for the knowledge and skill which enabled him to decide that an operation was necessary. Ladies and gentlemen, you and I have done that same thing many times for two dollars. This brings me to the point I had in mind that it would be equitable for the physician not to charge so much per visit irrespective of the nature of the case, but that he should charge more for his services in cases of great difficulty and danger, which require

greater study and attention and in which the responsibility is greater. If a surgeon charges more for a difficult operation—and he certainly is justified in doing so—why should not a physician receive larger fees in cases of great difficulty and responsibility? If this plan were followed the physician would have a minimum fee for visits, but if he were treating a dangerous case of pneumonia or diphtheria or whatever it might be, in which the weight of responsibility he carried was heavy, he would receive larger fees than if he were treating a cold in the head. I have my doubts as to the ease of educating our patients to this method of charges, yet I contend that it would not be unfair and is worthy of consideration.

One of the most interesting discoveries of modern medicine is that of serum therapy. Our Old School friends are giving it an immense deal of attention and we should be amiss if we neglected to study it ourselves.

Serum therapy should command our attention for several reasons, one of which is that it so closely resembles Homœopathy. The results which have been obtained in a number of diseases are such that this method of treatment should command our respect also because of the good it has accomplished. Its usefulness in the prevention of hydrophobia for instance, is beyond question, and at this time when hydrophobia is prevalent in many parts of the country, any physician would, in my opinion, be derelict in his duty if he did not strongly urge upon a patient who had been bitten by a dog which had rabies, the efficiency and harmlessness of this method of treatment. The philosophy upon which serum therapy is based is so different from that upon which the old method known as allopathy is based, that it constitutes a very great change in therapeutic reasoning. The old method was founded on an attempt to combat the disease itself, to treat the disease rather than the patient. The new method attempts not to actually treat the disease itself, but to reinforce and strengthen the natural recuperative powers of the system, and that is just exactly what Homœopathy has been claiming to do and which we believe it does do. Moreover, the serum is harmless if given to a person in health, another resemblance to Homœopathic remedies. While the serum in the final state in which it is used is not strictly a dilution yet it has been modified by its passage from one animal to another until it corresponds to a dilution and has developed powers which the original substance did not pos-

sess, another analogy to the Homœopathic dilutions. And most striking of all, the symptoms which the toxin produces in its virulent form are similar to those which it relieves in its modified or therapeutic character. Therefore, instead of opposing serum therapy I believe we should welcome it, study its effects carefully and without prejudice use it if it prove more efficacious than our usual remedies, or hold to them if they prove more valuable. I believe serum therapy will be of service to Homœopathy because of its resemblance to it. Thoughtful men of whatever therapeutic belief cannot help seeing the analogy to Homœopathy, and if they get good results in certain fields from serum therapy, they may ask themselves why equally good results cannot be obtained in other fields by a method which is so similar to that which they have already employed. This trend of thought is the more likely to occur since recent investigation has demonstrated the remarkable divisibility of matter and has also removed the doubt in regard to the efficacy of these wonderfully minute particles and shown the power dis-associated atoms possess in certain directions to be increased rather than decreased by their dilution or subdivision—exactly as Hahnemann himself declared, though in different language many years ago. It is therefore quite possible that serum therapy may be the link which will unite the Old School and the New School with mutual advantage to both, which leads to the second division of my discourse, namely, the relations of the two schools to each other.

It is not necessary to go into the past to study the origin of the reasons for the enmity which formerly existed between the two schools, and which still exists to a considerable extent. Many of the younger men in the Old School to-day frankly admit that they regret the lack of friendliness and fellowship and even further acknowledge that the Homœopaths were not in the past treated with justice. In other words, some of them are willing to admit that they have been in the wrong and are endeavoring now, instead of emphasizing the points of difference between the two schools, to lay stress upon the many things which they have in common, and to find a way in which they may come closely together. This new attitude has not as yet made great headway, so far as we can judge by the acts of their societies, but that it exists is beyond question. It must, however, be admitted that the attitude is not the same in all parts of the country. In some

places the old hostility seems as active as ever, in other places it is latent, in others there is unmistakable evidence of a sincere desire to have fairer and more friendly relations with us. It is possible that this desire is to some extent based upon a belief that Homœopathy may be extinguished by so close a relation, that amalgamation will occur. On the other hand, I am sure that there is in many parts of the country a sincere desire for the fellowship on equal terms of all educated medical men, irrespective of therapeutic beliefs, and I am further convinced that this sentiment will grow stronger and be more widely entertained. It already exists to such an extent that we must take it into account and decide what shall be our attitude. I wish to say at the outset, and to say it as strongly as language can make it, that I am not in favor of amalgamation with the Old School. Amalgamation means such a union that identity is lost. Whatever happens, however close and friendly our relations with the Old School may become, we must preserve our identity; and in order to preserve our identity we must preserve our societies, and we must not only preserve them but must strengthen them, and above all, we must and shall preserve and strengthen this, our national organization, the American Institute, the standard-bearer and bulwark of Homœopathy, ever in the forefront of all that is good in medicine, willing to investigate, unprejudiced in its judgments, but above all and before all determined to preserve Homœopathy.

Now, closer relations may and probably will be of mutual advantage, for closer relationship leads to a better understanding on both sides, and with a better understanding of what we believe and of what Homœopathy really is, will come, in my opinion, a gradual acknowledgment of the efficacy of the Homœopathic method in the art of healing.

Now, this closer relationship may be pleasant and advantageous to us, but it certainly contains elements of danger, the danger being that if we affiliate too closely with the Old School, we shall by reason of their large numbers become lost, and that Homœopathy will disappear. Because of that danger it is necessary, as I have said, to preserve and strengthen our societies. But there is another danger. While we should preserve our societies and never relax our efforts to make them stronger, we should meet every fair and friendly advance of the Old School with an equally fair and friendly spirit. This attitude is very important; for while there may be *possible*

dangers in closer relations there are *certain* dangers in the rejection of fellowship on fair and honorable terms, for the responsibility of separation would then be justly laid upon us, while heretofore the Old School has had to bear this responsibility, much to their discredit in popular opinion, and we can not afford to lose the support of popular opinion. What then shall be our general policy to-day and for the future? This general policy I believe to be that of avoiding amalgamation, but not of the rejection of honorable fellowship. On the other hand, where honorable fellowship is not possible, it is clearly our duty to decline it. In those States where the old attitude of hostility is maintained and in which there is an attempt to injure us by unfriendly legislation, it is clearly our duty to fight for our rights just as we have done before, and so long as we have public opinion on our side we shall in the majority of cases win the fight. It is difficult to overestimate the force of public opinion and of the great importance of being sustained by it. Public opinion is the one thing that no man or body of men can indefinitely resist. The individual or corporation or labor union, no matter how wealthy or how powerful, must in the end bow to public opinion. Let us, therefore, be careful to shape our policy so that we shall not fail to win the support of this strong ally.

The third and last subject to which I shall call your attention deals with those matters pertaining especially to Homœopathy and the Institute, yet some of them are so closely related to the profession in general that it is impossible to keep them exclusively within these limits. It is in my opinion very necessary that the Institute should be incorporated. This recommendation has been made a number of times before, yet never to my knowledge acted upon. I believe that time has now arrived when we should be incorporated and without further delay; and I recommend that we become incorporated under the laws of the District of Columbia rather than under those of any of the States. The officers of the Institute are sometimes obliged to assume responsibilities as individuals which should not be laid upon them, but should be borne by the corporation of which they are for the time being the executive officers.

It scarcely needs to be said that there should be a closer relation between the Institute and the State societies; each should be more helpful to the other, and the Institute should

become a more powerful factor than it is now in the dissemination of Homœopathy throughout the country. Various plans have been proposed to accomplish this desirable purpose. Many of our members are strongly in favor of publishing our transactions in the form of a monthly journal, and it is not to be denied that the Institute would come in closer touch with the physicians throughout the country if they received every month a live journal stamped with the authority of our national organization. The majority of our members has, however, thus far been in favor of retaining the single volume of transactions, very useful for reference, permanent in form, but late in arrival. It has also been suggested that we employ a man for the purpose of visiting all parts of the country, getting into personal touch with the physicians who will be an organizer and bring into our membership several thousand new members, thus vastly increasing the strength and usefulness of the Institute. Might it not be possible to retain our single volume of transactions, yet by enlarging the powers and duties of the secretary and increasing his remuneration, to make him the organizer as well as the editor of our transactions? Could he not at comparatively small expense issue a journal which should not contain the scientific papers which have been read at our meetings, but which should serve the purpose of establishing a closer relation between the Institute and the State societies and also obtain a hold on a large number of physicians who are not now members of our body? This seems to me possible, if we could secure the right man, at once enthusiastic, energetic, yet tactful and self-controlled, who would give all, or at least a large part of his time, to Institute work, and who would be at once literary and business editor and organizer. Such a man would be difficult to find, I admit, but I believe he exists somewhere, and when once discovered and rendered familiar with his duties, there should be no change in the incumbent of the office of secretary for many years. The monthly journal issued by him, small in size and inexpensive, would not compete with our present journals, since it would contain no scientific papers. It should be sent free to every Homœopathic physician in America, while the volume of transactions should go only to members of the Institute. This journal, going to many thousands of physicians, should, because of its large circulation, prove a valuable advertising medium and would attract advertisers to such an

extent that it should pay for itself. Its purpose would be *not* to instruct in medical science, but to arouse, interest and unify the Homœopathists of the country, to keep them in touch with each other, to keep them informed concerning legislation in the different States, and all matters and movements which affect their welfare and the welfare of Homœopathy. This is no easy task, it is on the contrary an exceedingly difficult one, but it should for that reason be undertaken without delay and persistently followed. I believe the time to be ripe for a widespread movement which shall lift us out of the apathy into which we have fallen and I am sure the Institute is the point from which this movement must start and from which must come its energy and propelling force.

We should use every effort to make the Institute more influential and authoritative. Here we should shape the general policy governing our school, leaving details to be worked out according to the exigencies of the different States. From this body should spring helpful impulses to our colleges and societies. The inter-collegiate and inter-State committees are already working along these lines, but their efforts need to be supplemented by those of the secretary, with enlarged duties and enlarged powers. If the journal, as I have outlined it, proves impracticable, the secretary could nevertheless issue bulletins and by personal letter, official in character, keep the Institute in touch with State and local societies and thus exert in some measure the influence which our national body should impart. This work can and will be efficiently performed only by some one whose duty it is to do it, who will be adequately remunerated for the time and labor involved and who will be held responsible for its faithful performance. This work will require a larger annual expenditure than we have in the past been accustomed to make. I am very glad that we were able last year to give a portion of our surplus to our college and hospital in San Francisco, which certainly deserved whatever aid we could render in their extraordinary calamity, but in the future I advise that we strengthen and husband our resources in preparation for larger work of our own.

It may be pertinently asked why has Homœopathy made no more headway in the medical profession in general. In the ranks of the Old School there are thousands of earnest, sincere men, who welcome every new addition to their therapeutic armamentarium which appears to them reasonable and promising.

Why has a method of therapeutics which *we* believe to be scientific and valuable appealed so slightly to them? These men are not at all bigoted and prejudiced. Can it be possible that we have been at fault ourselves? It is sometimes salutary to see ourselves as others see us. I ask your most careful attention to what I am about to say. I believe that much of the hostility and acrimony of the past has been due to misunderstanding and that we are in part responsible for it. The really scientific man is modest, is not boastful and does not make too sweeping claims for his discoveries and his deeds. He sees better than any one else the imperfections and limitations of his achievements. May it not be possible that in the past, and even in the present, our claim to a law of cure, and especially an infallible law of cure, is too sweeping and appears to assert that which we do not ourselves mean? What would any one be justified in understanding who read in our journals, or heard in our societies, the statement that we possess an infallible law of cure, most of all *the* infallible law of cure as unfailing as the law of gravity? He would without question understand us to assert that we never fail to cure, that we are infallible, that we alone have had revealed to us God's one way of healing the sick. And what opinion would he be justified in holding of our intelligence or honesty? What would *we* understand a man to mean who asserted that he had an infallible law for growing melons? We would naturally suppose that he meant that he could infallibly raise melons. If he organized a school and proposed to teach that infallible law for growing melons would we be inclined to send our sons to it to obtain instruction in agriculture? No, we should consider that man either foolish or dishonest. We have in the past been called fools and knaves by those who thought we made for ourselves the preposterous claim to infallible cures. True, they misunderstood us, but we were in large part responsible for the misunderstanding. If a man should go ducking in Chesapeake Bay and announce in starting that he had an infallible law for shooting ducks, we would rightfully assume that he meant that he could get the ducks. If he explained his law by stating that he fully understood the law controlling the attraction of gravity and the force of projectiles, that he knew the weight of powder and shot in his gun and therefore could not fail, we should smile, for the *hitting* is affected by the inconstancy of the duck and the fallibility of

the man behind the gun. What is a cure? It is a result, not a process or method of treatment, but the happy termination of that treatment. Are we prepared to say that we have an infallible law of results? If not, then we should be careful to frame our language so that we shall not be misunderstood. And I beg you not to misunderstand me. I admit and assert that we have a definite formula, or law, if you prefer the term, which guides us in the selection of our remedies and which is a constant factor in our system of therapeutics, but this is very different from a law of *cure*. I am not advocating attempts to curry favor with the Old School or anything in the remotest degree resembling such an attitude. I believe the Homœopathist should never be ashamed of his principles, but should be proud of them, and should hold his head high and look all scientific men straight in the face, with modesty but with determination. He need not, however, carry a chip on his shoulder. I believe the time is at hand for a general, though gradual, acceptance of the truth of the Homœopathic principles and that we can aid the progress of this movement by avoiding extravagance of assertion and particularly by stating our principles in terms which cannot be misunderstood. Is it not worth while to be thus careful and moderate, yet firm in conviction?

Another point is worthy of attention. We hear statements about the results obtained by Homœopathic surgery. I do not question the results, but *is* there such a thing as Homœopathic surgery and is not the term liable to cause misunderstanding and hinder the progress of Homœopathy? Surgery, in my opinion, is the same in all schools of medicine practiced by educated men and it is misleading to speak of Homœopathic surgery. I recognize the fact, and rejoice in it, that Homœopathic therapeutics applied to the patient in preparation for operation and in recovering from it, are a potent aid to the surgeon and aid materially his power, but I maintain that this element in the surgeon's work is therapeutic and not surgical and that it is unwise to make statements which do not thus discriminate.

How shall we then state our principles, claiming only that we can prove, with the modesty of scientific men, yet with the conviction of earnest ones, who believe in the truth of what we uphold? This question is not easily answered, yet I believe there *is* an answer which should satisfy all shades of be-

lief within our own ranks and place us before the world in a light which shall command respect from thinking men and hasten the wider adoption of our art of healing. We can safely assert that Homœopathy is built upon a scientific foundation and although our art is imperfect and we are far from infallible, yet our system of therapeutics is so reasonable in theory and so valuable in practice that it is worthy of preservation and for this reason we maintain our schools, hospitals and societies and will continue to do so. And we can further contend that this course is not narrow or sectarian, and that no body of men desiring to preserve that which they believe to be of value to humanity could or ought to do otherwise. Is not this enough? And will not so reasonable a statement of our position be more likely to bring about the study and acceptance of our principles and practice than a more sweeping one? I most certainly believe so.

Under the provisions of our by-laws the Seniors of the Institute are exempt from the payment of dues. Many of them reach the honorable senate, which their members compose, between the ages of fifty and sixty years, a time of life when they are best able to pay the annual dues, far more so than the young men who are in the early years of practice and whom we greatly need within our ranks. I am in favor of amending the by-laws to the effect that an age limit rather than membership in the senate of Seniors should bring about exemption from dues, and I suggest sixty-five as a proper age. There are now about 250 seniors and if they all paid dues the revenue of the Institute would be increased by more than \$1,200—and we urgently need every dollar that we can raise to carry on a more effective propagandism of Homœopathy than we have heretofore inaugurated or sustained.

The Seniors possess something else besides money—they have experience and wisdom. The time of the Institute is largely taken up with the considerations of questions of business and policy, which encroach upon the time needed for the sectional meetings and which nevertheless are not given sufficient time for their adequate discussion. We must shortly increase the number of days of our annual session and give more time to the discussion of questions which are of the greatest importance to our welfare, even our existence, or some of these matters must be turned over to a smaller body to whom we delegate power to act upon them. I suggest that

the Senate of Seniors is a body well fitted by experience and ripeness of judgment to decide other questions than those of ethics alone, which are now submitted to it.

During the past seventeen years the Institute has met but twice west of Chicago, Denver in 1894 and Omaha in 1898. It has met but once in its history in the southwestern part of the country, St. Louis in 1885. In my opinion the time has now come for visiting this great section of our land, absolutely unknown to most of us, which is being populated and built up by vigorous men and women, who are full of the optimism and energy that culminates in great achievements. It will do us all good to see for ourselves how this splendid region is being developed and we can perhaps be of use to those physicians of our school who have settled there; there are many of them and many more will locate there in the future. Never has more hearty and enthusiastic invitation been given to the Institute—and we need enthusiasm, especially do we of the older sections need it. It is so easy to follow the beaten path, to let well enough alone, to be satisfied with present conditions; yes, it will certainly do us good as individuals to visit this growing region and it will help the Institute mightily to bring into its membership the hundreds of young physicians who have cast their lot there. I shall not attempt to choose between localities in this great section in which we ought to hold our next annual session. Their praises will be sung in due time by voices whose eloquence I cannot hope to emulate and the choice can then be made, but that we should visit this part of our country I am convinced. I have advices from California to the effect that their terrible experiences of last year have been followed by such chaotic conditions during the reconstructive period that our friends there will not be able to entertain us before 1909, though their welcome will not be less hearty because delayed. California is therefore out of the question for 1908.

There are several suggestions of minor importance which I desire to make, which will facilitate the smoothness with which the Institute machinery works. I suggest to the friends of presidential candidates that they select their nominees for first and second vice-presidents from localities in the region in which the presidential candidate lives, so that it will not be too difficult for the executive committee to get together when needful. The nominees for the office of secretary, treasurer

and registrar should not, in my opinion, be changed from year to year, when once capably filled. This year the members of the executive committee lived in New York, Connecticut, Ohio, Michigan, Missouri and California, and it proved difficult to hold satisfactory meetings.

I suggest to my successors in this office that the members of the publishing committee be chosen, whenever practicable, from the city in which the secretary lives, that there may be easy conference in the performance of their duties.

You may not, and probably do not, all agree with everything that I have said. It would be most surprising were it not so. But there are several points upon which all Homœopathists should agree. Whatever our differences we must not quarrel among ourselves, but respect and tolerate each other's honest opinions. Nor should one set of men arrogate to themselves superiority because of the assumed perfection of their belief and practice. And we can certainly all unite in this; our art of healing is too valuable to be lost and must and shall be preserved; and the American Institute of Homœopathy is great enough to hold us all and we should all be members of the Institute, ready to do our utmost to help onward our chosen work and to preserve and make stronger our splendid national organization.

It is impossible to close this address without touching the personal note and it is with genuine feeling that I turn from matters of business and policy to those of sentiment. To one who has attended these meetings year after year how large a place in his life our Institute fills and how precious are the associates and friendships connected with it. The physician under most favorable circumstances has heavy anxieties and burdens to bear and he is entitled to everything that can add to his pleasure and enjoyment. The yearly meeting of old friends, the making of new ones, the hearty good fellowship of Institute week—these are pleasures which he enjoys and looks forward to and which mean more to him every year. The discomforts and annoyances of one meeting, (and I suppose there are such at every annual meeting, in spite of the efforts of the executive committee to satisfy everybody) become sources of merriment at the next one, while the firm grip of the hand loses nothing of its warmth as the years glide by. And the Institute itself; how our pride in it and our loyalty grow, until we feel for this old institution as the college man does for his

alma mater; we personify her and our regard for her becomes one of personal affection, for she is the embodiment of the friendships here existing and her face is the composite portrait of the faces I see before me, of the faces absent for the time being and of the faces that we shall not on earth see again.

**TOPICAL CUTANEOUS THERAPY, THE INDICATED LOCAL REMEDY,
ITS ACTION AND METHOD OF APPLICATION.**

BY

RALPH BERNSTEIN, M. D., PHILADELPHIA, PA.

Dermatologist to the West Philadelphia General Hospital and Dispensary, Clinical Instructor in Skin Diseases, Hahnemann Medical College, Philadelphia, etc.

(Read before the Homœopathic Medical Society of the State of Pennsylvania, at Pittsburg, Pa., September 17, 1907. Under the auspices of the Philadelphia Society for Clinical Research.)

MR. PRESIDENT, MEMBERS AND GUESTS OF THIS SOCIETY:

Just a year ago I had the pleasure of reading a paper before this worthy society, on "Some of the More Common Skin Diseases." At that time and frequently since then, have I been requested to write a paper on the local treatment of dermatologic affections. I have therefore prepared a paper for you which I have titled, "Topical Cutaneous Therapy, The Indicated Local Remedy, Its Action and Method of Application." In my paper to-night, it is my purpose to give a general plan, which shall be of benefit, in treating skin diseases locally. That is to say, a plan which will enable us to correctly treat a diseased skin on its general appearance, for diagnosis is often bewildering, and hard to make. Not that every dermatologic condition can be treated without diagnosis, but that there are certain manifest conditions which are general, and which can be met in a general way. It is, therefore, my intention to give the general manifestations which a few of the more common local remedies will relieve, and the general indications, or existing conditions, which will point out the indicated local remedy. I shall furthermore give the method of action of the various drugs employed, so that we might know why we are using them. I shall finally conclude with the methods of application and removal of the various substances used, which is of more than paramount importance in the proper local treatment of dermatologic affections.

Think not for one moment that I am decrying the internal method of treatment for cutaneous diseases, for that would be folly, especially from the Homœopathic standpoint of view. For I must repeat, again and again, that it is demonstrated, day after day, in our Homœopathic skin dispensaries that our patients cannot help getting well, even where they absolutely refuse to carry out directions given for topical treatment. Now I do not presume to infer that this would demonstrate that topical treatment should not be practiced when Homœopathic remedies are capable of sooner or later making a cure, for such is not the purpose of my paper. I might state here that I have in the course of preparation a companion paper, titled, "Internal Cutaneous Therapy," which I shall hope to have the pleasure of reading to some of you at least in the near future. I might further state that it is not my intention to-night to give a long list of topical remedies, but shall limit myself to a few of those which clinical experience in the skin section of the Hahnemann Hospital Dispensary at Philadelphia, and in the skin dispensary of the West Philadelphia General Hospital have demonstrated to be the best.

Let me begin then, by giving a short résumé of our dermatologic armamentarium, that is to say, a few of the various substances which are useful and their ingredients. Among the varieties of topical substances used I shall first mention the detergents, to which class belong the drugs, which will aid us in removing crusts, scales, scabs and extraneous matter. As water is usually irritant to acutely inflamed surfaces, olive oil is to be used instead, to which is to be added ten to fifteen grains of salicylic acid. Why salicylic acid? Because of its well known keratolytic properties, that is, its ability to loosen up and cause solution of the epidermis.

Soothing applications I shall next consider, for one is very, very frequently called upon to allay some acute dermatose which is playing havoc with the patient. Of all the soothing lotions, lotio calamine has indeed been a good friend to patient and doctor alike. Its composition is as follows: Pulv. calamine, pulv. zinc oxid, glycerine, of each a drachm and lime water, four ounces. Many an erythema has succumbed to its balmy influence. Many a baby's acutely inflamed epidermis has been soothed by it, and many an aching sun burnt skin has given way to its tranquility. Accept lotio calamine then as a true dermatologic friend and see what a host of grateful pa-

tients it will gain. For obvious reasons, we must occasionally have resource to a soothing ointment instead of a lotion. Then consider a combination which I call the unguentum calamine, composed of a drachm each of the following: Pulv. calamine, pulv. boric acid, pulv. zinc oxid, in an ounce of the ungt. aquae rosae, as a base. How cooling and soothing this combination really is its use will easily demonstrate.

Antipruritics will next concern us; the lotio calamine and unguentum calamine, which I have just mentioned, are more or less antipruritic in their action, so that they very often suffice to allay any mild itching dermatose. However, where they fail, carbolic acid, or menthol will be considered as additions. The amount added to be small to begin with, not more than one per cent., and then to be gradually increased as needed. It is to be remembered that carbolic acid acts by its direct influence upon the sensory nerve endings, and therefore it must be increased with caution. It is often advisable and as well of benefit to drop back to small quantities after having increased to a safe limit. Menthol acts as an anti-pruritic by producing a different kind of sensation, that is, one of cooling; many patients prefer it to carbolic acid and vice versa.

Let us now take up the astringent class, for we will occasionally want to use an astringent, as for example in a sub-acute eczema. Among the good ones to use are bismuth sub nitrate, bismuth sub gallate, resorcin and salicylic acid, one-quarter to one-half drachm to the ounce in combination with other substances, remembering that boric acid and calamine are likewise slightly astringent in their action.

The anti-parasiticides will next claim our attention, among those which will be of service to us in controlling the attacks of both the animal and vegetable parasites, are sodium hyposulphite, (in saturated solution), sulphur, naphthol, and the ammoniated mercury: from ten to forty-eight grains to the ounce, depending upon the sensitiveness of the skin and the age of the patient.

Stimulating applications will often be found to be of necessity, as in old indurated eczemas, psoriasis and the like. Where they are needed, tar, the compound tincture of green soap, sulphur, naphthol, and the ammoniated mercury, will be found to be of benefit. Again it is well to take the precaution to use this class of substances intermittently, using a soothing lotion or ointment in between.

Among the keratolytics, or that group of drugs which causes solution of the epidermis, might be mentioned salicylic acid, liquor potassae, and the tincture of green soap. Directly opposite to this class we have those drugs which tend to hasten cornification of the skin, by converting the soft epidermal cells into horn cells, and are known as keratoplastics. Among the weaker keratoplastics, Unna has classed ichthyol, thiol, and sulphur, and among the stronger, tar, resorcin and chrysarobin.

Now that I have discussed the varieties of topical applications, let me next take up a discussion of a few of the more important drug actions which will better enable us to understand topical cutaneous therapy. Let me first consider boric acid, which is a mild sedative, and has a soothing effect upon the skin. Is a weak disinfectant and antiseptic, and slightly keratoplastic. It is useful in any acute condition, and seldom if ever aggravates or irritates any existing condition. It is a common ingredient in the majority of soothing preparations whether in the form of powder, lotion or ointment. Glycerine, in its pure state, is decidedly hygroscopic, and when applied to the skin it extracts water rapidly and is decidedly irritating. If, however, it is highly diluted its action upon the skin is like that of fats and oils and is decidedly soothing. Calamine, an impure carbonate of zinc, is a simple powder, of a brownish to pinkish color, decidedly soothing and slightly astringent. Salicylic acid has a double action; in small amounts, five to ten grains to the ounce, it is astringent and soothing and is an oft-used dermatologic drug. Especially useful in acutely inflamed surfaces, for it assists in the regeneration of destroyed epithelium. In larger amounts, fifteen to twenty grains to the ounce, it is antiseptic and antiparasitic, and keratolytic, being useful in those dermatoses which are not acutely inflammatory. Still again, in still larger amounts, fifty to eighty grains to the ounce, it is decidedly keratolytic, useful in such amounts for the removal of hardened masses, then best incorporated in colloidin, so as to limit its action to the intended area. Resorcin, like salicylic acid, has a double action upon the skin. In small amounts it is keratoplastic, that is, it tends to harden the skin by favoring cornification of the epidermis. In large amounts it is keratolytic, destroying and macerating the skin. Resorcin oxidizes upon exposure to the air, and is stronger and more stimulating than sulphur, which I shall next consider.

Sulphur derives its therapeutic properties from the fact that

it is converted into hydrogen sulphide when once applied upon the unbroken skin. When, however, it is applied upon raw surfaces, it is converted into sulphuric and sulphurous acid. It is well to remember that in scabies, sulphur owes its value as the remedy par excellent to the fact that it is converted into hydrogen sulphide, and especially so when lard is used as a base, for lard seems to favor the freer elimination of the hydrogen sulphide. Sulphur, likewise, belongs to the same class of drugs as the two preceding, withdrawing oxygen from the tissues, and favoring cornification. If used in amounts of five to ten grains to the ounce, it can be used in inflammatory conditions without irritation. The precipitated sulphur is the form usually used, on account of its greater purity over the other forms.

Icthyol, a very useful remedy, is obtained by a process of distillation from a bituminous quartz which is rich in the fossilized remains of fish and marine animals, and contains from ten to fifteen per cent. of sulphur. It is antiparasitic, antiseptic, astringent, and antipruritic. It is of service in burns, erysipelas, eczemas, and any of the acute inflammatory dermatoses. Its odor is an objection; thiol, however, which is similar in its properties, is almost odorless.

I shall next consider that useful, but much abused remedy, tar. In skin diseases we may use one of three preparations, wood tar, or *pix liquida*, oil of juniper, or *oleum cadini*; and oil of birch, or *oleum rusci*. The most reliable of the three is *pix liquida*. Tar in large amounts is stimulating and irritant, whereas in small amounts it is antipruritic, and astringent, acting as an astringent to the cutaneous capillaries. All skins will not tolerate tar, and therefore great care must be used in its use. It should always first be used in very small amounts, beginning with not more than one per cent. and very gradually increased. For its anti-pruritic effect, usually about four per cent. will be tolerated, whereas as a stimulant, in sub acute and chronic dermatoses, from twenty per cent. to the crude tar can be used. Tar is usually incorporated in an ointment base, as it is sparingly soluble in water. Where it is desirable to use a liquid preparation, Bulkley's *liquor picis alkalinus* may be used in from one to ten per cent. strengths. The ingredients follow, *pix liquida*, two drachms, caustic potash, one drachm, aqua, one ounce.

I shall now conclude the consideration of drug action, with

a few words on ammoniated mercury, which is indeed a very useful remedy in pustular and parasitic skin lesions. In amounts of ten to forty grains to the ounce of ointment base, the ammoniated mercury is useful as an antiseptic and local stimulant. In amounts of five to twenty grains to the ounce, it is of decided benefit in small areas of suppuration, and is non-irritating. In amounts of from thirty to forty grains to the ounce this same drug is useful in such conditions as psoriasis or any other condition where it is desirable to excite a healthy inflammatory reaction.

I shall next have a few words to say with reference to ointment bases, of which there are many. Among them might be mentioned lard, lanoline and vaseline. Cocoa butter, wax and paraffine being added to give stiffness, and glycerine, olive oil, and oil of sweet almonds, etc., to soften them. Lard as an ointment base is frequently used, with the addition of about five per cent. of benzoin to prevent rancidity. It must be remembered that this form of ointment base is often irritable to tender and sensitive skins; petrolatum and lanoline as well will frequently not be tolerated. As to the absorbability of certain ointment bases, there is indeed a marked diversity of opinion. Lanolin being a fat similar to skin fat has always enjoyed the reputation of being the most absorbable of them all; this fact, however, at present is questioned by some authorities. Luff, in the *Monat f. Prak. Derm.*, contends that vaseline preparations were the most absorbable, and lanoline the least, While Aubert, in the *Jour. Cutan. Dis.*, contends that oils and lard penetrate the deepest with simple application, while lanoline was the most penetrating when friction was used. Still again, Sutton, in the *Monat f. Prak. Derm.*, comes forth with the information that he considers that neither lanoline nor vaseline are at all absorbable, seldom reaching deeper than the constricted necks of the skin follicles. Sutton further claims that of all the unguent bases, goose grease is the most absorbable of them all, penetrating far down into the very bulbs of the follicles. Olive oil he places second on the list of absorbables, and, as before mentioned, lanoline and vaseline last. Clinical experience has demonstrated to me that of all the ointment bases the official ungt. aqua. Rosae, or cold cream, is easily the best of them all, both from the standpoint of absorbability and the fact that it is absolutely non-irritating, cooling, soothing, and acceptable to the most tender skins. Cold cream owes its cool-

ing properties, chiefly to the fact that it contains nearly twenty per cent. of water, the evaporation of which gives the cooling effect. Cold cream is composed of almond oil, which gives it its power of absorbability; spermaceti, white wax and rose water.

Let me begin the consideration of the indicated local remedy by dividing skin diseases into two great classes, those which are specific, and those which are non-specific. The non-specific, which concern us only at this time, I shall divide into those which are infectious and those which are non-infectious. This will give us enough of a working rule to outline the necessary treatment for the general run of skin diseases at least. Under the class of the non-infectious I shall include such conditions as the erythemas, whether it be erythema simplex, erythema caloricum, erythema solare, or sun burn, erythema traumaticum, erythema intertrigo or chafing, or erythema multiforme. The eczemas, urticaria, and pruritis, likewise belong to this class, and happily all of these conditions just named will respond to either of our old friends lotio or unguentum calamine. With or without the addition of either carbolic acid or menthol, according to the amount of itching present. Where oozing or weeping is marked the best results are obtained from the unguent, with perhaps the addition of a half or a drachm of an astringent when necessary, of which we would choose either the bismuth sub galate or sub nitrate, the latter being the more powerful. Let the general rule be to begin the treatment of any acute dermatose with a mild and soothing ointment, or lotion, and if in doubt continue the same treatment until the true picture has clearly established itself. The probabilities are that the dermatose will in many a case long have disappeared, while one is still wondering what it might have been. Let another working rule be, wait, hurry never, nature works wonders in the acute dermatoses, and is always ready with a helping hand, if only given half a chance. Then again, fear not the bugaboo of driving in the eruption. Unna, Duhring, Hebra and Croker all say there is no danger and there is no reason why there should be.

The infectious class next demands attention. Among this class I shall mention such conditions as impetigo, the trycophyton infections, seborrhœa, erysipelas, scabies, psoriasis, (?) dermatitis venenata, and alopecia areata. The anti-pariciticide which will be of the most use to us in impetigo, the trycophyton

infections, and any pustular skin disease, is the ammoniated mercury, 10 or 40 grains to the ounce of the ungt. aquae rosae. This same drug is of benefit in alopecia areata, both for its stimulating effect and its anti-parasitic properties, twenty to forty grains to the ounce. The seborrhoeas and seborrhoeic dermatitis, wrongly called seborrhoeic eczema, best respond to either sulphur alone or in combination with resorcin or salicylic acid in the following combination: If upon the scalp resorcin, alcohol, glycerine, of each two drachms, and rose water, four ounces. If a tonic effect is as well desired, tincture capsicum, one drachm, may be added and instead of the rose water two ounces each of alcohol and bay rum. Upon other parts of the body the compound zinc sulphide lotion, (a drachm each of zinc sulphate and potassium sulphide to four ounces of rose water), or the following combination, resorcin and sulphur, of each a drachm, to one ounce of cold cream, act well. Ivy poisoning, in mild forms, responds very readily to the lotio calamine, with the addition of about two per cent. carbolic acid. Pusey recommends, in the early cases, thorough washing or scrubbing with soap and water to remove the active principle toxicodendrol, then a washing with ninety per cent. alcohol to dissolve any remaining active principle, and finally a dilute solution of subacetate of lead, to precipitate any remaining toxicodendrol which must be removed at once. Erysipelas best responds to the application of pure carbolic acid, controlling its action with the use of ninety-five per cent. alcohol. Saturated solution of sodium hyposulphite is of benefit, and as well in ivy poisoning; ichthyol, frequently does good. Psoriasis, questionably parasitic, demands marked stimulation. The following usually produces good results: Tar, one drachm, ammoniated mercury, forty grains, resorcin, twenty grains, and rose ointment, one ounce. In concluding my paper I shall lay stress for a few moments upon the importance of the proper application and removal of ointments and the various substances used in dermatologic practice. It is unfortunately a notorious fact that very few people understand how to use the various substances prescribed for them, and just as unfortunate is the fact that about the only instruction a patient receives is: "There, use that." Now it is of the utmost importance whether a patient should be advised to rub an ointment in well, or whether it should simply be applied. In some of the acute dermatoses, mild, gentle rubbing in will be toler-

ated with marked benefit. When I say rubbing in, I mean with the palm of the hand, exerting firm but gentle pressure. In such conditions as scabies and psoriasis, and where marked stimulation is desired, decided rubbing in is necessary, often taking as much as an hour to cover extensive areas. If it be necessary to apply an ointment the same can nicely be done by applying upon absorbent cotton, a little care and patience, however, often being necessary. Lotions, such as the *lotio calamine* and *alba*, should be dabbed on; a small quantity should be poured out into a saucer after thorough shaking, and then lightly applied by means of old pieces of clean linen, allowed to dry on, and then repeated until at least several coats have been applied. In pustular conditions, the same lotion should not again be used, which will prevent further infection. Absorbent cotton should not be used as an applicator, as it takes up too much of the precipitate contained in the lotions. The proper removal of a dressing is always facilitated by the free and liberal application of the unguent used, thus preventing sticking. Proper removal is as well aided by the use of the absorbent cotton, upon which the ointment has been spread, for if adherence should at all take place, it can quite easily be removed in small particles, which does not interfere with the healing process which may already have taken place. I am indebted for this suggestion to Bulkley, of New York. Dressings or ointments should never be removed roughly for obvious reasons. Water should never, never be used to assist in the removal of applications or dressings; olive oil, always. It is as well a mistake to renew dressings too frequently, if the condition is progressing nicely let it alone; pus infections only need frequent attention.

A SALT FREE REGIMEN FOR SCARLATINA.—Pater in a communication to the *Societe Medicale de Paris*, has found that the withholding of salt from the food of scarlatinal patients exerts a remarkable influence in greatly reducing the tendency to albuminuria. Under this treatment also the patients gain weight more quickly than under a strict milk diet. He states that the achlorinated diet is without danger in scarlatina and protects from nephritis much better than an absolute milk diet. He also asserts that it shortens the duration of the disease by abbreviating the period of convalescence.—*La Tribune Medicale*.

THE "WET PERITONEUM" IN TYPHOID.

BY

EDWARD R. SNADER, M. D., PHILADELPHIA, PA.

(Read before the Homœopathic Medical Society of Pennsylvania, Pittsburg, Sept., 1907.)

CLINICIANS are very much alive to the difficulty of determining the extent of the intestinal lesions in typhoid fever. It is almost axiomatic among thinking clinicians that the severity of the general symptoms accompanying typhoid fever is absolutely no guide as to the intensity of the local lesions in the intestines. No matter how grave, almost lethal, the so-called "typhoid state" is, we can never justly infer that the implication of Peyer's patches and the mucus membrane is on the same plane of severity. The enteric fever poison is admittedly both local and general in its effects, and these effects do not by any manner of means always balance each other. There are cases, on the other hand, where the systemic manifestations are almost *nil*, and yet the diagnosis of typhoid fever is undoubtedly tenable and correct, in which an inference that the local lesions are similarly slight is not justifiable, and in which there suddenly occurs one of those tragedies of typhoid, hemorrhage or perforation, or both. Practically, therefore, you can never judge of the intensity of the specific lesions of typhoid by the gravity of the general symptoms, nor infer by the absence of the typhoid state and associated grave phenomena that the local lesions are slight and relatively inconsequential. Of course, whether the general symptoms be light or severe, if tympanites and tenderness be present, we can draw inferences as to the relative gravity of the intestinal implications. In view of these apparent facts, it seems wise to me to draw the attention of the profession to a condition of the peritoneum I have frequently observed in the later weeks of typhoid fever that has been of importance to me, not only diagnostically, but more especially of value in the therapeutic and dietetic management of certain cases of enteric fever. I have not found reference to this condition in medical literature. It may have been observed and commented upon frequently by others. I am not at all anxious about the priority of discovery of this sign, but I am anxious that my experience shall be corroborated and the profession have the benefit of a valuable clinical sign that is of

inestimable value to me personally. I have found it in all types of the disease, and at all ages, but with far greater frequency in children. The sign is altogether a palpatory one, obtained by passing the hand over the abdomen with exceedingly light pressure. It may be found generally over the abdomen, but may exist only or more markedly in the right iliac fossa. The sensation conveyed to the hand I cannot better describe than to say that there is a feeling that there is a "wet peritoneum" under my hands. I have not been at all certain about the pathology of this "wet peritoneum." Where I have found it during life, and have subsequently seen the post mortem, perforation, deep ulceration, intense inflammation of the mucus membrane, and in some instances active inflammation of the peritoneum has been discovered. Sometimes fluid has been found, sometimes not. Clinically quite a number of these cases show at some period of convalescence a demonstrable quantity of free fluid in the peritoneal cavity. Clinically also some of these cases, where the "wet peritoneum" is well marked, tubercular peritonitis following typhoid has been diagnosed, with and without post mortem confirmation, and with and without recovery. Some of the cases of "wet peritoneum" are undoubtedly tubercular. Most of them are not. Some develop peritonitis who have this "wet peritoneum;" the vast majority do not. This sensation of "wet peritoneum" typically does not give rise to the signs of free fluid, although, as I have before mentioned, it is not infrequent to find it. What I want to indicate is that demonstrable fluid is not necessary in the recognition of the palpatory sign of "wet peritoneum." The sign is sometimes not at all well marked, and it is exceedingly difficult to demonstrate. I have had resident physicians who could not appreciate the sign, from lack of tactile training, examine a number of normal abdomens by palpation and then place their hands on the "wet peritoneum" of typhoid, and they were not able to appreciate, even then, the tactile differences between the feel of a normal abdominal wall and the "wet peritoneum." Ultimately, after feeling many typhoid abdomens, the necessary tactile education was acquired, enabling them to recognize the sign readily. These men were anxious to ascertain the sign, because they found that I relied almost exclusively upon its absence to determine the question of whether liquid diet should be abandoned and solid food begun. In some instances they found I would order solid food on the

twenty-first day, and in other instances delay for six weeks or two months. To me personally this feel of the peritoneum (or abdominal wall, if you want to be hypercritical about the procedure) is the most valuable of signs to determine the possible restoration to normality of the intestines following an attack of typhoid fever under certain circumstances. If the peritoneum is not "wet" I have little fear of semi-solid food; if it is "wet," then there is danger of hemorrhage and perforation, and these accidents I have frequently seen follow the administration of semi-solid food (and, indeed, without any dietary error whatever) both in hospital, private and consulting practice when I have found this sign of "wetness." The inference I draw from the "wet peritoneum" in typhoid is that the intestinal lesions of the disease are well marked; that they are not yet "healed," no matter whether the temperature, pulse and respiration have been normal for a month or not. The storm of the disease may have passed, but the wreckage has not been cleared away.

While I have found the "wet peritoneum" in the first stage of peritonitis, in early tubercular peritonitis, in severe enterocolitis, in cirrhosis of the liver prior to the occurrence of ascites, and also in the early stages of ascites from other causes, there is to my hand a distinct difference in feel between the passive "congestion" and the inflammatory "congestion" of the "wet peritoneum" occurring in the late stages (sometimes, however, very early) of enteric fever. This difference in "feel" it is impossible to describe in words; it can, however, be appreciated practically—the "wet peritoneum" of typhoid is "heavier" than in passive states of engorgement. Occasionally, in very obscure cases, where all ordinary clinical methods failed, I have relied on the "wet peritoneum" to diagnose typhoid fever; but this use of the sign has been exceptional. I try to ascertain the "wetness" or "dryness" of the peritoneum in order to determine whether the intestinal lesions of typhoid fever are severe or not. If I find the sign of "wetness" absent late in the disease, or more particularly during convalescence, I am very apt (other factors being equal) to stop liquid food and permit solid food.

I have no statistics whatever at my command as to the frequency of the occurrence of this sensation of wetness or moisture in the abdominal walls in typhoid fever. The observation has extended over a number of years, and I have made use of the sign and its occurrence in a practical sort of way, and it

seemed to me that the method ought to be the common knowledge of the profession. It is simply one of those "little things" a practical physician comes to a knowledge of unconsciously, by slow accretion, simply by contact with disease.

The exact value of this observation must be determined in the future. So far, I am of opinion that the inference is not a just one that when a "wet peritoneum" is not found that the intestinal lesions are slight. This would be assuming entirely too much from the observation of any one man, and it is not any inference I often draw myself, save under rare circumstances. I simply feel, when I do not discover the sign while treating typhoid, that the chances are that the local lesions of the typhoid are slight; but when I discover the "wet peritoneum" I am morally certain that the special lesions of typhoid fever are well-developed, marked, and that hemorrhage and perforation, and even actual peritonitis from continuity and extension, is more apt to occur, and that no matter what the stage of convalescence, no matter how normal the temperature, the respiration, the pulse, and how hungry the patient, no solid food should be given until the peritoneum is no longer "wet." The presence of the sign is, therefore, of more value than its absence. When it has been present and disappears, the inference of a return to normality is nearly conclusive.

BIOLOGY. OYSTER JUICE.—Baylac, of France, gives the composition of the juice of oysters of various origin. The constitution is almost constant for each variety and contains 2 grammes of albumin per litre, urea, phosphates, sulphate, chloride of sodium, and of magnesia, potassa, silica, &c. The quantity of chlorides varies with the locality. Those of Cette contain more organic matters than those of Marennes. The question here is not pure sea water, but an organic liquid.

RHODODENDRON IN SUBACUTE RHEUMATISM. Mrs. H., aged 37, has been a sufferer from chronic rheumatism for the past eight years. The pains are worse in the muscular and fibrous tissue about the joints. Worse while at rest and relieved at once by motion. They are worse at the approach of a storm, but better when the storm has commenced. She is always worse before a storm, especially if it is an electrical one. She was given *Rhododendron* 6x three times a day, with pronounced improvement. Two weeks later the potency was raised to the 12x and later three doses of the 30x were given, and *Saccharum Lactis* with complete relief of all the symptoms.

THE ROLE OF VASCULAR DISEASE IN GYNÆCOLOGY.

BY

NORMAN S. BETTS, M. D., PHILADELPHIA, PA.

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THE intimate relations which exist between normal pelvic functions and vascular phenomena in the female lend a particular importance to the consideration of circulatory disorders in this locality.

The physiological congestions incident to pregnancy, ovulation, menstruation, coitus, etc., necessitate an arrangement of blood supply which is unique. The venous channels, as is usually the case where physiological engorgements must be more or less rapidly depleted, are numerous and capable of a considerable amount of normal distention. The arteries are less capacious, the veins acting as reservoirs and regulators of the degree of turgescence or erection of the vascular organs.

The uterus is completely surrounded by a system of intricate venous plexuses lying beneath the peritoneum and passing out laterally after receiving the blood from veins and sinuses in the uterine muscle. These plexuses communicate freely with the vaginal and vesical plexuses below and passing between the layers of the broad ligament form the uterine vein, which proceeds in an extremely tortuous manner and with numerous collateral anastomosing branches to the latter pelvic wall, where it joins the internal iliac. The branches throughout these plexuses are freely supplied with valves, but the common iliac vein, which drains the internal iliac is without valves.

The ovarian venous capillaries emerge from the hilum of the ovary and enter a mass of veins situated along the inferior margin of the organ. These communicate freely with veins from the upper part of the uterus and from the tube, as well as with the uterine plexus, forming an intricate network, the ovarian or pampiniform plexus. The blood is finally emptied into the ovarian vein, which passing upward, on the right side empties at an acute angle into the inferior vena cava—on the left side at a right angle into the left renal vein.

In discussing the anatomy of these veins in its relation to

pelvic vascular disease, especially ovarian or spermatic varicosities of the left side, it is usually asserted that there is a well-marked valve at the opening of the right vein into the inferior vena cava, but frequently none at the orifice of the left into the renal vein. Rivington, however, claims that a valve is usually found at the orifice of both veins. When no valve exists at the opening of the left ovarian a valve is usually present in the left renal vein within one-quarter of an inch of the point of union with the ovarian. The number, arrangement, and functional capacity of the valves in these veins is important, on account of its relation to varices of the vessels of the broad ligament and pampiniform plexus, a lesion to which I wish to draw special attention.

The veins of the broad ligament also establish communication with the portal system by means of branches to the superior hemorrhoidal plexus—a point of considerable importance in connection with our subject. The left ovarian vein, already somewhat functionally handicapped by the arrangement of its termination, is further embarrassed by passing immediately behind the sigmoid flexure of the colon, the heavy contents of which, it is not difficult to conceive, may at times offer another obstacle to the free passage of blood.

It is thus seen that in the venous channels which drain the pelvic genital organs we have numerous conditions favoring diminution of their functional capacity. The vessels start in the loosely supported tissue of the broad ligament and immediately divide into numerous branches which in their tortuous course form innumerable loops and pockets, especially about the ovary in the pampiniform plexus. The blood is finally passed into a vessel, the ovarian vein, the capacity of which is considerably less than that of the channels which it drains.

Williams has pointed out that each horizontal section of the uterus has its own arterial and venous branches, passing at right angle to the organ, so that any flexion or kinking however sharp cannot interfere to any marked degree with the blood supply, either above or below. He criticises the theory that uterine “engorgement” is a necessary result of displacements, especially flexions.

In my association with specialists in operative gynæcology, I have been impressed with the comparative frequency with which varicose veins of the broad ligament are encountered. This condition was first described by Richet in 1854, who gave

it the name ovarian varicocoel (varicocèle ovarien). Since then it has been repeatedly observed and the pathology studied by several prominent gynæcologists. It has been the practice in most discussions of the subject to liken the condition, both in general symptomatology and in pathology to varicocoel in the male. The analogy is, however, certainly not a true one. The general anatomical arrangements, not to mention the functional peculiarities in their relation to etiology, are so dissimilar in the two sexes that attempts at comparison would seem somewhat forced.

Various causes of tubo-ovarian varicocoel have been advanced—lack of support of the veins, congenital weakness of the walls, absence of valves, constipation, repeated pregnancy, subinvolution, tumors, uterine displacements, affections of the heart, lungs and liver, etc.

While one or more of these factors will explain the condition in many instances there is a certain class of cases where it appears necessary to seek further for the real cause or causes of such dilation. In these instances all of the usual etiological factors are absent and the condition upon the surface appears ideopathic. On the other hand, with the exception of congenital weakness of the vessel walls, all of the above mentioned causes are met with at times without the slightest permanent effect upon the calibre of the veins.

Michel and Bichat, in reporting a case of enormous varicocoel extending from the uterus to the perietal peritoneum on the left side, suggested a totally different etiology, namely—an attenuated infection, during the puerperium, of the lymphatics of the tubo-ovarian pedicle with extension to neighboring vessels causing a periphlebitis, with subsequent dilatation. In support of this theory they adduce the argument that there was a cervical laceration on the same side with great dilatation of the broad ligament lymphatics and sclerosis of the ovary.

It seems probable that premature arrest of involution, maintaining pelvic engorgement an undue length of time after child-birth would explain the condition in many cases.

At the present time the complete etiology and pathology of varicose veins remains unsettled. The classical theory of obstruction to outflow will frequently not bear close inspection.

In fifty cases of varicosities of the lower limb, A. P. Gould found that forty-one were observed before the age of 25 years.

a period of life when we do not observe frequent increase in vascular tension, and before undue stress is usually put upon vessel walls. The general physical condition of such patients is frequently extremely good, and all of the usual text book causes of the trouble can often be excluded. The influence of pregnancy, Gould says, is not that which is usually supposed. In a large number of cases he has found, on close questioning, that the varicosities existed prior to the pregnancy and never gave rise to discomfort until gestation had begun. Also, it is to be noted that patients sometimes complain of the varices at the beginning of pregnancy before the uterus has exerted pressure upon the pelvic veins.

There has seemed to me in many cases to be a distinct hereditary tendency to varicose veins, although I have not now sufficient data at hand to substantiate such an opinion. I believe that we have all seen cases where all causes except an hereditary predisposition could be excluded.

I have at present under my care an unmarried girl of 28, who is being treated for indolent ulcer of the leg. Both lower extremities show a marked, though not extreme, varicose condition, especially of the external saphena. All of the usual obstruction causes can be excluded. She has robust health, the heart and pelvic organs are normal, bowels regular, pregnancy has never occurred and beyond working behind a counter for some months, a few years ago, she has not been required to be upon her feet more than the average individual. She tells me that three brothers had present the same condition and that she herself has observed "the blue lines ever since she can remember."

Whatever the etiological factors in varicose veins in general, there can be no doubt in cases of large uterine myofibromata, or ovarian cystic tumors, where tubo-ovarian varicocoele is so frequently seen, that mechanical obstruction is the cause. It is only in cases where no evidence of obstruction can be found that the etiology becomes puzzling.

The walls of ectatic veins are primarily thin and attenuated but later a productive phlebitis occurs leading to a connective tissue hyperplasia—sclerotic changes, with atrophy of the muscular and elastic fibres, which might be due either to trophic causes or as seems possible in a few cases, to chronic inflammation from attenuated bacterial infection. The increase in calibre causes an incompetence of the valves, thus

producing a vicious circle. Thrombi occur with a fair degree of frequency and phleboliths are sometimes observed.

The symptoms produced by broad ligament phlebectasis are generally somewhat as follows: Patients complain of a dull, aching, distressing pain on one or both sides in the tubal regions or extending upward—made worse by physical efforts, standing, walking or sitting bent over, as on a low seat. The discomfort is usually somewhat relieved by lying down for a long time and after the beginning of menstruation. It is occasionally aggravated just before the flow starts. Gestation sometimes has a favorable influence. There may be a history of malaise, nervousness, general indisposition, neuræsthenia and even melancholia.

In a certain number of cases there is a marked tendency to enteroptosis. The following case is fairly typical:

Mrs. M. C. Age 25. Married five years. Two children. No miscarriages. Menses began at the 17th year. Average duration 4 to 6 days. Slight leucorrhœa. Has always been a hard worker. She complains of a dull aching pain, extending from right iliac region upward. Has had appendicitis. Also has severe pain in toes of the right foot accompanied by swelling of the foot. When this pain becomes severe the pain in her side is relieved. The pain lasts a variable length of time—from a few minutes to hours.

Examination showed a rectocoel, erosion of the cervix, and displacement of the right kidney.

Operation for ventral fixation and appendicitis showed an extreme dilation of the pelvic veins. Is it possible that the right-sided nephroptosis in this case was the etiological factor? We could understand such a condition of affairs more readily on the left side where the renal drains the ovarian vein.

In general, these pains show a gradual tendency to become worse and none whatever to ameliorate. The course is characteristically slow, both in onset and progress. When not produced by gross pelvic obstructive conditions I have observed no special tendency to the involvement of one side with greater frequency than the other.

Where, as is frequently the case, varicosities are complicated by, or are the result of, other pelvic disease such as the presence of neoplasms, the usual symptoms may be masked or entirely altered as is illustrated in the following case:

Mrs. S. A. Married one year. Past history has no bearing except the duration of her illness—13 years.

Operation for cystic disease of the right ovary disclosed a marked condition of pelvic varicosity. Uterus, small, adherent to rectum, left ovary normal but adherent. Right ovary cystic.

This patient told me that her only pain was of a sticking character, and on the right side. It was not affected in any way by menstruation. Her bowels were constipated and she has considerable gastric flatulency.

Diagnosis of tubo-ovarian varicocoele in such a case would be impossible and illustrates the fact that the condition at times may be symptomless.

While the broad ligaments are not erectile structures, it seems reasonable to suppose that their veins take part in the hyperemia incident to sexual excitement, and defective sexual hygiene, prolonged ungratified desire, excess and the like are doubtless capable of setting up a symptomatology and a pathology such as we have discussed.

Dr. Homer I. Ostrom has pointed out the probability of a condition of acute dilation of these veins. He says: "The dull aching in the pelvic fossa and sense of weight and pressure that occasionally attend the close of congestive dysmenorrhœa, and much the same line of symptoms that follow sexual excess, or prolonged ungratified excitement, are in all probability, judging from the analogy of the behaviour of the spermatic veins in the male, due to a surcharging of the ovarian veins and plexus; to stagnation of blood and consequent pressure on nerve trunks. With the restoration of the circulation these symptoms disappear and nothing remains to mark the venous engorgement. I am inclined to believe that such acute dilation of the pampiniform plexus as we have described, has not infrequently been wrongly diagnosed as congested ovaries, or enlarged Fallopian tubes, the prevailing impression being that any pain on the side of the uterus is connected with the adnexa and must be in the nature of congestion or inflammation of the organs in that location."

It is probable that a diagnosis of tubo-ovarian varicocoele by physical examination alone is all but impossible in many cases. Various authors speak of a knotted angle worm feel to the mass in the broad ligament together with a reduction in size when the patient assumes a horizontal position. Provided the vein walls are not thickened, unless the dilation be extreme it seems probable that but few men have the "tactus

eruditis" sufficiently developed to make such a diagnosis—the soft masses readily escape the examining finger in the vagina or rectum. In cases, however, where phlebitis has increased the thickness and hardness of the vein or where thrombi and vein stones have formed we may often readily demonstrate the phlebectasis, provided other pelvic conditions are favorable.

If rupture occurs, as occasionally happens, we are confronted with the usual symptoms of confined or free abdominal hemorrhage.

Where the question of differential diagnosis from salpingitis occurs the slow onset and progress of varicocoel with absence of fever, inflammatory symptoms, and the usual causes of salpingitis, together with the subjective symptoms above noted will lead us to suspect the real cause of the trouble; especially if the pains be bi-lateral and the Fallopian tube does not fall into the cul-de-sac of Douglas, as it tends to do when distended.

It is then, our belief that in varicocoel of the veins of the broad ligament we encounter a condition which in the majority of cases is extremely difficult of diagnosis, and that a correct conclusion can only be reached by a very painstaking consideration of the total symptomatology, subjective and objective, with history, habits and general mode of life. The author also makes the suggestion that the demonstration of a family hereditary tendency may be of value.

Closely allied to the subject which we have been discussing are hematoma of the broad ligament, or of the parametrium, varices or vascular tumors of the endometrium, vagina, labia and meatus, all of which are most frequently associated with obstetrical work, either as complications or sequellæ. While conditions of real interest and importance their discussion would carry us too far afield, and I shall refer to them only as relevant under the title of the paper.

Turning now to the role of arterial disease in pelvic pathology, let us briefly consider some of its more important phases, with special reference to the relations of sclerotic processes to pelvic pain and hemorrhage.

By far the most important part of such a discussion concerns the effect of such changes in the uterus and to the consideration of this organ alone I shall confine my remarks.

The study of visceral arterial sclerosis is still practically in its infancy. In a general way it is believed that factors which

put stress upon the vasomotor system, which tend to alter more or less rapidly the blood pressure or which maintain high arterial tension for considerable lengths of time, are concerned in the etiology of the disease. It is in this way that alcoholism, hard work, nervous tension, etc., act. In addition to these we have the effects of various irritating substances upon the vessel walls as seen in certain toxic conditions and the infections.

It has been partly demonstrated that a selective tendency towards arterial degeneration exists in the organs or parts which are called upon to functionate most actively under a given stimulus. In this way myocardial degeneration occurs first and is further advanced than elsewhere in conditions which throw most stress upon the heart. (Nephritis, alcoholism, hard work). Likewise overindulgence at table shows its effect upon the vessels of the stomach, liver and pancreas. It is doubtless in accordance with this rule that arteriosclerotic changes so frequently occur in the uterus which has been the subject of circulatory irregularities. The visceral pains produced by the disease are described as similar in whatever organ they occur and the term anginal is used in describing them.

In chronic metritis and sub-involution where sclerotic changes have taken place this symptom at times occurs. Little is at present known of the diagnostic methods in such cases. but paroxysmal pain, exquisite tenderness and sudden rise of blood pressure, when the etiological factors have been present should lead us to consider such a cause.

The relation between metrorrhagia occurring at or near the menopause and disease of the uterine arterial walls has recently aroused considerable interest.

Like the veins, the pelvic arteries are subject, especially in sexually active women to unique functional conditions, which in a certain proportion of cases result at middle or advanced life in pathological changes in the blood vessels, and surrounding perivascular tissue. The disease is largely confined to women who have borne children, and is accompanied by alterations in the general uterine musculature.

The muscle fibres of the uterus as well as those in the arterial walls themselves have an important function in controlling the calibre of the uterine vessels and by their contraction in regulating the circulation through the organ. In the menstruating uterus the muscular tissue is relaxed and bleeding occurs. The same thing is observed during curet-

tage, where measurements of the uterine cavity before and after the operation will show a resulting increase in the internal dimensions. If, while the bleeding is free irritating applications such as very hot irrigations are made the uterus contracts and the hemorrhage ceases.

It becomes thus apparent that in considering the effects of arterial disease as evidenced by hemorrhage, passive congestion or even anemia our study must also take into consideration the condition of the uterine muscle; indeed it has come to be generally believed that in many cases of uterine hemorrhage of obscure origin the more important factors are myometrial changes, which impair its contractility, the vessel sclerosis and circulatory embarrassments acting secondarily.

This "muscular insufficiency" of the uterus as it has been called, may be due to various causes, the more common being the production of connective tissue at the expense of the muscle fibres. Less frequently the atony follows the febrile and wasting diseases.

The most common cause of fibrosis uteri is prolonged passive congestion, that sequel of so many ills, local as well as general in character, one, not least in frequency, being the previously considered pelvic varicocoele.

Arteriosclerosis is, of course, the natural accompaniment of old age and goes hand in hand with sclerotic processes in other parts of the body. The uterine senile changes differ however from those which result in bleeding about the menopause in the following particulars: Following the climaxis there normally occurs an atrophy of the uterine muscle fibres, which are replaced by connective tissue. The vessel changes are in the nature of an obliterating arteritis with great encroachment of the lumina by proliferation from the intima. The other coats are also thickened and in many areas the arteries entirely cease to functionate, nothing remaining but a fibrous cord.

In the disease under discussion, however, the elastic tissue of the media and adventitia is chiefly affected, to a less degree than of the intima. The changes are in the nature of a hyperplasia, resulting in a great increase in the thickness of the wall, but frequently leaving the lumen unaltered. At the same time fibrosis of the uterine wall has occurred, which interferes with the normal contractility of the organ and the control of its circulation.

To the hemorrhage resulting from conditions of this kind, Ansbach, of Philadelphia, has recently given the name "metrorrhagia myopathica" which he defines as a "form of uterine hemorrhage which is independent of the usual causes of metrorrhagia, and is produced by a pathologic condition of the uterine muscle."

From his studies he concludes that the exact cause of the symptom is still uncertain, but probably lies in the elastic tissue constituents of the arterial and uterine wall, though it may be purely functional.

The diagnosis of metrorrhagia myopathica is justifiable under the following circumstances: The patient is at or near the menopause and has borne children. Physical examination shows an enlarged and softened uterus with patulous os, all other causes of hemorrhage can be excluded and the usual therapeutic measures are unavailing. Endometritis frequently accompanies the disease, but thorough curettement has no effect upon the flow when the myometrium has become affected.

Ansbach lays stress upon the necessity of positively excluding carcinoma in such cases.

The possibility of ovarian changes being responsible for many cases of obscure hemorrhage, especially near the menopause, has been frequently discussed, but this still remains terra incognita. Indeed the whole field of pelvic vascular disease is beset with theories, debated questions and wide diversity of opinion. It has been the attempt of the author to present, briefly only, the most important phases of the subject—an immense amount of research is yet necessary before we can claim to understand in detail the role which vascular disease plays in gynæcology.

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GESTATIVE CONDITIONS EVENTUATING IN ECLAMPSIA.

BY

WM. A. HAMAN, M. D., READING, PA.

(Read before the Homœopathic Medical Society of Pennsylvania, Sept., 1907.)

"AND, lastly, so to arrange sanitary and hygienic measures that, wherever possible, disease may be prevented. Could Hippocrates meet again a class of students at some modern Cos, and discuss the changes which twenty-five centuries had wrought he would dwell upon this latter development of the science and of the art as the crowning benefit which the profession has bestowed upon the race." (Osler's *Modern Medicine*, Vol. I.)

If there is, in the whole range of medicine, a more striking illustration of the foregoing quotation than the benefits of prophylaxis, derived from the treatment of those gestative conditions likely to eventuate in eclampsia, I am sure I cannot name it.

Anyone who has had the misfortune to witness death from this truly appalling explosion of nerve force, or a crippling hemiplegia the result of apoplexy of the cerebral arteries, or the still worse permanent mental defects, with or without aphasia, will certainly agree that prevention must be the goal of modern treatment instead of cure as formerly striven for.

Prophylaxis being the keynote of our endeavors it naturally follows that an inquiry into the conditions underlying such awful manifestations of nervous energy is absolutely essential to intelligent efforts at checkmating their vicious tendencies.

It would be a waste of valuable time to trace the evolution of the modern conception of the etiological factors of eclampsia. It is true enough that these conceptions are mainly hypothetical, so far as actual demonstration is concerned, and will probably undergo some modification, yet the present treatment based on these hypotheses yields results so much in advance of that formerly obtained that we must concede that we are more accurately informed than our forebears.

There is one striking feature connected with the modern conception of the causes of puerperal convulsions and that is the relegation of the condition of the kidneys to a position of subsidiary importance in the etiological picture of these fac-

tors, while at the same time admitting the vast influence of the condition of these organs for the weal or woe of their possessors so far as an outbreak of eclampsia is concerned.

This paradoxical statement needs elaboration for its proper understanding. It is no longer accurate to regard eclampsia as synonymous with urinæmic convulsions and to consider the outbreak of the eclamptic seizures as due to renal degeneration *per se*.

The renal involvement must be regarded in the light of the "last straw that breaks the camel's back;" as but one of a series of factors and, although a weighty one, yet not as the sole factor.

The institution of the pregnant condition with its attendant increase in anabolic metabolism, is inevitably associated with augmented affiliated catabolic processes the disposition of the products of which falls upon the emunctories of the mother. The organs chiefly involved in the ultimate disposal of this marked increase in waste material are the skin, liver and kidneys. That the physiological ability of these organs is severely taxed by the strain incident to the steady increase in the accumulation of waste products certainly goes without saying. It is equally plain that the additional labor thrown upon these emunctories by unsanitary surroundings and unhygienic modes of living may quite easily be the factor that turns a physiological process into a pathological condition.

Again, if there is any inherent lack of physiological ability on the part of any of the emunctories to meet unusual demands the boundary line between the physiological and pathological may be quickly overstepped.

The emunctories chiefly responsible for the eclamptic disaster are the liver and kidneys. Too little attention so far has been given to the liver as an depuratory organ. Physiologists teach us that the liver is the main factor in the conversion of worn-out proteids into soluble urea. The destruction of the toxins developed in the fermenting mass within the intestinal canal, with the leucomaines, those metabolic alkaloids "some of which may become active and many of which are physiologically active," is also accomplished by the liver. It is not an evidence of gullibility to believe that certain people are endowed with sufficiently vitalized viscera; let gestation occur in such an individual and the liver may soon lose its ability to dispose of the accumulating poisons. This failure on the part

of the liver to properly prepare for excretion worn-out proteids, leucomaines and bacterial toxins imposes upon the sufficiently taxed kidneys an increased amount of labor that may cripple them disastrously.

So much for the definitely known conditions settled by pregnancy upon the emunctories of the mother.

Unquestionably the pregnant woman elaborates the ordinary poisonous waste products in excessive amounts.

That in addition to these products the pregnant woman produces entirely new toxic substances is the hypothetical condition before alluded to.

This has been called the autotoxæmia of pregnancy and is regarded as *directly the result of the gravid state or elaborated as an anomalous phase of gestation*, the result of hepatic and renal insufficiency and is known as the pre-eclamptic stage. For reasons that will be given later I prefer to regard this production of autotoxic material as the result of an anomalous phase of gestation, principally hepatic insufficiency, and not as directly the result of the pregnant condition which would make toxæmia invariably associated with pregnancy; there can be no question that the poisons are produced in increasing quantity up to the time of delivery but as long as the emunctories are active there is no toxæmia.

The French school of pathologists have been the most active in developing and supporting the theory of a special autotoxæmia. Tarnier has established that normally during pregnancy a certain amount of fatty degeneration of the liver cells obtains. Gross changes in the liver such as necrotic areas and hæmorrhagic infarcts have repeatedly been found in the liver of those dying from eclampsia, but it is difficult to determine whether the relationship of these gross changes to the eclamptic condition is that of cause or effect; but the demonstrated fatty degeneration of the liver cells in normal pregnancies certainly, in some way, must modify the products of the functional activity of the liver.

It is well known that the renal tissue frequently undergoes departures from the normal in the pregnant condition. There is one renal change that is frequently established and, although practically identical with the changes met with in other affections, yet it is attended with different sequences.

I do not now refer to the acute nephritis that may develop as a purely accidental complication and that has the same cau-

sation, symptoms and sequels as when it occurs in the non-gravid. Neither do I allude to the chronic nephritis that may antedate pregnancy and that may have been latent, existing without evidence of the disease, but to the condition known as the "pregnancy-kidney." Tarnier has shown that "pregnancy tends to the retention of poisons within the body for the urine of the pregnant woman is less poisonous than normal and the urine of the eclamptic is less poisonous than the urine of normal pregnant women."

This is not the result of inflammation but of changes in the parenchyma of the kidney and not in the stroma. Those who have had the opportunities to examine these organs, and who are qualified to determine such questions, agree in limiting the changes in pregnancy-kidney to the renal epithelia, which undergo a metamorphosis of a fatty character.

These changes are the result of the auto-toxæmic conditions developed by the gravid state and are to be likened to the renal changes induced by the infectious diseases, erysipelas, diphtheria, typhoid fever, etc., that likewise develop as the result of the production of specific toxins and too rapid tissue waste. These parenchymatous degenerative changes in the renal epithelia in the infections are the result of the degraded nutrition and the baneful impress left on these structures by the toxic materials in their passage through them for extrusion from the body; in pregnancy these degenerative changes result from the latter cause and overwork. This last factor, overwork, which can be taken as a predisposing cause, is the large increase in the labor required on the part of these epithelial structures in depurating the blood of its large content of effete material of foetal and maternal origin.

Multiple pregnancies and large corpulent women, in other words, those having a large tissue waste constitute a large proportion of the eclamptics. The functional incapacity consequent upon the pathological condition of the renal epithelium results in retention within the body of the toxic principles produced by the gravid condition, and those resulting from general catabolism. In this way a vicious cycle is established—the toxæmia inducing renal insufficiency, which in turn, augments the toxic condition of the blood.

I have alluded to the similarity in the histological alterations existing in the renal degenerations of the acute infectious diseases and those of the pregnancy-kidney. I want to

call attention to a marked dissimilarity in results that I think is significant. None of the acute infections with marked renal changes have any tendency to the development of convulsive symptoms similar to those of eclampsia or urinæmia. Even in diphtheria where complete suppression of the urine may occur "symptoms which can without doubt be attributed to uræmia are not met with." (Albutt's Sys. Med.) In scarlatina the uræmic phenomena are the result of actual nephritis as a sequel and do not occur from *renal changes* during the height of the scarlatinal disease.

To my mind, this is the result of the hypotensive effect of the toxins of the acute infections on the vasomotor centers, that in some cases overwhelms them with fatal results which is so generally attributed to "heart failure;" in these acute infections there is an utter absence of any approach, under any circumstances, to the hypertension found in the renal degeneration of pregnancy that results in eclampsia; an argument in favor, I think, of the dependence of the eclamptic outbreak upon the marked hypertension per se rather than upon the actual quantity of the toxins.

I made the statement that it is no longer accurate to regard eclamptic and uræmic seizures as identical processes; this assertion is based on differences noticed by various observers.

Bourneville, a pupil of Charcot, at the latter's suggestion, was the first to systematically make thermometric observations in diseases of the nervous system and found that in eclampsia the temperature rises above the normal and so remains elevated during the intervals, and undergoes a slight rise at the time of a convulsion. If the eclampsia promises to be lethal the temperature increases and may be very high. If the patient improves and recovers, the temperature lowers until it reaches the normal.

In uræmia, on the contrary, the temperature falls from the beginning and continues to fall gradually until death when it may reach such a sub-normal point as 93F. and even still lower.

"Hence a very striking contrast exists between the thermometric curve of puerperal eclampsia and that of uræmia, which we will sum up in the following statement: In the beginning, a *lowering* of the temperature in uræmia is noticed, and an *elevation* of the temperature in puerperal eclampsia. In the course of uræmia, the temperature falls gradually, while in

that of eclampsia it rises more and more, from the beginning of the attack, usually very suddenly. These differences are greater at the approach of and even at death. In uræmia the temperature falls very much below the normal; in puerperal eclampsia on the contrary, it rises very high above the normal." (Charpentier.)

This thermometric rise in eclampsia is taken by some to give color to their theory that certain of the ubiquitous microbes are the responsible agents.

"Another phenomenon which is essentially uræmic and not present in eclampsia is dyspnœa." (Edgar.)

"Eclampsia may occur without albuminuria and without visible alterations in the kidneys." (Edgar.)

"The recently introduced science of cryoscopy discriminates between the blood of known uræmia and that of eclampsia." (Edgar.)

These statements go far to prove that some factor, other than those usually held back by the degenerated renal organs, is the predominating influence in the development of the eclamptic syndrome.

Modern thought in connection with the prophylaxis of eclampsia has crystallized in the following statement: That "with the exception of the fulminating type of eclampsia, where art almost always fails, it may be stated that prompt action, will, in the vast proportion of cases, prevent the development of eclampsia." (Grandin.)

This certainly throws a large responsibility on the physician that can only be discharged by alertness.

The practical application of our knowledge concerning the causation of eclampsia (demonstrable and hypothetical), in its prophylaxis, is found in a more careful regulation of the prospective mother's surroundings, habits and diet.

We should discourage the lax custom of seeing the patient for the first time when she is in actual labor. She should be encouraged to consult her physician in regard to her many discomforts. It is true that for many of these we can do nothing, but the frequent consultations will probably enable the physician to detect, in their incipency, the departures from the physiological in her important functions. The primiparous and the corpulent, those having a large tissue waste, should have our especial solicitude.

We should insist that she be dressed so as to allow the ut-

most freedom to the play of the thoracic wall, in this way encouraging deep breathing, thereby securing thorough oxygenization of the blood—a powerful factor in the proper disposition of toxic material.

The stimulation of the skin secretions can best be secured by clothing, protective enough to avoid surface chilling, and frequent bathing with friction. Diet should be moderate in quantity but nutritious, avoiding an excess of meats and fats as well as condiments. Alcohol, from its irritative effect upon the liver, can only be mentioned to be condemned.

The condition of the intestinal tract requires close attention. The Homœopathic school of practitioners are entirely too negligent in this particular.

Bouchard, in his work on Auto-toxæmia, has demonstrated by actual experiment on animals that diarrhœas diminish the toxicity of human urine. What folly it is, then, to allow a sluggish colon to add the burden of copræmia to the already heavy strain on the emunctories. This knowledge should be of priceless value to the physician in his treatment of the threatened woman; free elimination through the colon is of vital importance. Absorption is slow in those who are anasarcaous and purgatives, in consequence, must be given in much larger doses.

Any trace of defective liver action, particularly jaundice, should receive instant attention.

The interrogation of the renal organs is, of course, effected through urinary examinations. In primipara and the corpulent this should be made at intervals of two weeks during the last few months of pregnancy.

Albumin, unfortunately, neither by virtue of its absence, presence or quantity can be taken as a true index to the functional capacity of the kidneys; when present it occasionally plays the trick of appearing intermittently and through this fugaciousness albuminuria may escape detection.

A persistently low specific gravity with no more than the ordinary output of urine in twenty-four hours should, of course, put us on our guard.

An estimation of the quantity of urea passed per diem is a still more accurate index to the functional ability of the kidneys. This latter process is the most accurate method of testing this efficiency, yet we should not forget that we are estimating the quantity of but one ingredient of the urine and a non-

toxic substance at that; it is quite possible that, at the same time, other more toxic substances might not find the kidneys permeable. So the excretion of the normal amount of urea testifies to the relative, and not to the absolute, efficiency of the renal organs. Unfortunately this method is not simple even when the popular Doremus instrument is used; the urine must be freed of its albumin; it must be diluted in case the sp. gr. is 1025 or over; the hypobromite of soda solution must be freshly made which involves the handling of that vile element, bromine.

All this means time and labor and I feel sure that very few go to this trouble. What do we gain by this information? Nothing that can not be acquired by simply measuring the quantity (24 hours) of urine and taking the sp. gr. of the mixed urine. When defective in quantity and too low in sp. gr. we believe that because urea and other solids are difficult of excretion that toxic substances are accumulating in the system. We gain no knowledge of the actual amount of mischief until the symptoms, premonitory of eclampsia itself, develop. We all know of waterlogged cases, almost anuric, that were dragged along and, failing to develop any of the premonitory symptoms of eclampsia, were happily delivered. Contrariwise, we know of cases of eclampsia developing where the renal symptoms were slight, the attack apparently evolving without sufficient renal disease.

After all, this information about the functional disability of the kidneys does not give us the most useful insight into the shrouded conditions underlying the outbreak we so much dread.

What we most need is a measure of the resentment of the nerve centers to the presence of the toxic substances that are accumulating in the blood.

How do the nerve centers tolerate the toxic material? is a question of far greater moment than how much poison is accumulating? What does it matter, from the viewpoint of eclampsia, how much poison is accumulating as long as it is well borne? Whether albumin be much or little, whether the percentage of urea be high or low, are questions that, of course, should be answered, but they are not of equal importance with that of the arterial tension which, unquestionably, is of transcendent significance, because the arterial tension is an accurate index to the toleration or the resentment of the nerve centers.

These statements may seem somewhat iconoclastic but I am sure that the future will substantiate them.

The varying degrees of excitability of the nerve centers in different women are of as great importance to the development of eclampsia as in other convulsive troubles. On the whole, pregnancy generally is accompanied by a more or less unstable condition of the nervous system, somewhat akin to that which obtains in infancy. This is particularly true of primipara in whom eclampsia is so frequently encountered. It goes without saying that a comparatively small quantity of toxin will, in a pregnant woman with irritable nerve centers, cause convulsions while a larger quantity, in a stolid, phlegmatic woman, will be borne without such explosions of nervous energy. Therefore, it must be plain that if urinary examinations could actually determine the exact amount of toxic materials that fail to be excreted (which no one claims) this information would not be an infallible guide to the results of this retention.

A heightened arterial tension has been the invariable attendant on all actual eclamptic attacks so far observed and we know that an abnormal increase in tension precedes the eclampsia. In this respect it parallels what we know of the increase in tension in uræmic conditions and the marked increase in the hypertension in the acute uræmic outbreaks.

This hypertension is the result of the retention of toxic materials within the blood that have a stimulating effect upon the vasomotor centers, exciting general vascular spasm, which results in a rise in blood pressure.

This is a conservative attempt to get rid of these obnoxious toxins, in that this rise in tension keeps the urinary output at a higher level than would otherwise be the case.

A persistent arterial tension above 135mm. is abnormal. This hypertension may remain comparatively moderate entailing but little likelihood of an increase sufficient to cause convulsions, or it may speedily rise to the danger point; repeated observations are necessary to learn its trend.

The convulsions seem to be directly due to the heightened arterial tension. Physiologists teach us that the cerebral vessels are without demonstrable vasomotor nerves; in some way it seems that the inability of the vasomotor system to lessen the increasing quantity of toxic blood flowing through the cerebral arteries, that must attend every upward step in the

hypertension, is directly responsible for the production of the convulsions. Certain it is that as soon as the tension is decidedly reduced the convulsions cease; all drugs and measures of benefit during the convulsive stage are, without exception, hypotensive in their action.

Therefore, I think it is plain that the measure of the resentment of the nerve centers to the presence of the toxins accumulating in the blood we find in the millimeter scale of the sphygmomanometer, and that in furthering the prophylaxis of eclampsia our most valued ally is this instrument.

During the past twelve months I have had two experiences with marked hypertension in pregnancy. A brief review of these cases will not, I think, be without interest.

Mrs. Edw. D., formerly quite healthy, while pregnant the third time called on me in October, 1906, engaging me to attend her. She was low spirited, was sure she was going to die this time. She was seven months advanced and had some oedema of the feet; urine was non-albuminous; arterial tension was 140mm.

This slight hypertension I attributed to her psychic condition. I requested her to see me occasionally; this she neglected to do.

December 4th she sent urine for examination this I found very albuminous and it contained hyaline and granular casts in abundance.

I called upon her the next day and found her oedematous in the lower limbs with puffed face and hands. She had excessively severe occipital headache, and such poor vision that across the room she could not distinguish between men and women she also had bright sparks, "spangles," before her eyes. Her pulse was 72 and her arterial tension was 225mm.

I requested a visit from her husband that evening and made arrangements to induce labor the following morning because I believed in the imminence of convulsions. During the same night labor set in spontaneously and in a very short time a dead child was born, breech first. In twelve hours the arterial tension had dropped to 210mm., and continued sinking until it became normal.

Mrs. S., pregnant the fourth time. She has for years been afflicted with chronic interstitial nephritis and has undergone decapsulation of both kidneys in 1902 at the hands of Edebohls himself. Anyone interested will find a full report of her

case in Edebohl's *Surgical Treatment of Bright's Disease*, Case No. 23; page 195. Edebohl claims "a practical cure;" I cannot agree with his optimism because in the five years following the operation I never found the sp. gr. normal nor the quantity near the normal output. This woman took a remarkably intense interest in her case and estimated the sp. gr. herself many times daily and very rarely found it to be more than 1008.

I have known this woman many years, have attended her in all her labors and first made the diagnosis of nephritis in 1899.

Her tension in 1905, when I first became interested in this subject, was 155mm., and this degree of hypertension was maintained, without variation, during the following year. When she was three months pregnant she called on me and I found that her arterial tension was 165mm. In two more months it was 175mm. She was indifferent and I did not see her again until nine days before her accouchement. Her tension at this time was 220mm. She passed 32½ of urine per diem, the sp. gr. being 1004. For the first time in years I found albuminuria; the sediment was abundant, heretofore this was not appreciable. It contained hyaline and very granular casts, renal epithelium and very granular squamous and columnar epithelium. The only distinctly threatening symptoms were an occasional headache and cloudy vision; a brisk purge always promptly dispersed the headache.

I was uneasy about this high tension and suggested the possibility of being obliged to induce labor prematurely for her safety, but she demurred, "no monkeying with her," as she termed it; and, knowing the weaker tendency to the development of eclampsia in those having chronic nephritis prior to pregnancy, I did not press my opinion, and in eight days she passed through a normal labor without incident.

The study of arterial tension with reliable, standard instruments is in its infancy and whatever discrepancy exists in results is mainly the consequence of the use of primitive instruments which give higher readings.

Bear in mind that, in normal pregnancy, there is no essential hypertension. This I have demonstrated repeatedly in phlegmatic multipara who have had normal tensions during pregnancy and, even in labor between the pains.

If there is one invariable accompaniment of autotoxæmic retention it is hypertension, which is the most infallible guide to our appreciation of the effects of this toxæmia.

This, to my mind, signifies that there is no autotoxæmia in normal pregnancy, but that it arises as an anomalous phase of gestation. Were this toxæmia directly due to the gravid state hypertension would always be present in pregnancy. I have so frequently disproved this to my own satisfaction that I must conclude that the autotoxic conditions are anomalous, due to defective hepatic action, this speedily producing the pregnancy-kidney when the toxic materials progressively accumulate.

There is nothing more firmly fixed in the realm of vascular tension than the invariable association of marked hypertension with eclampsia.

Observations are still wanting as to where the point of hypertension is, the overstepping of which is likely to precipitate an attack of eclampsia. This ground is still virgin, and I am sure it is a most alluring field, promising large results to those who have the opportunities for tilling it.

From my study of this subject and experience with some cases of gestative and nephritic hypertension I have gathered impressions that embolden me in having the temerity to hazard a guess as to where the danger line is. I would remind the reader that the average normal tension is 115mm. (100 and 130mm. being low and high normal tensions respectively) and that any tension persistently above 135mm., not due to psychic stimulus, must be viewed with suspicion, whether albuminuria exists or not, and is to be taken, in the gravid state, as evidence that the balance between secretion and excretion has been disturbed and that autotoxæmia exists.

A steady increase in tension shows infallibly the advance of vasomotor spasm excited by the accumulating toxins and indicates the necessity of looking after the emunctories. Should the 200mm. point be reached we should be apprehensive and the most energetic measures should be instituted to unload the system of the poisons that are rapidly heaping up or in a short time symptoms of threatening eclampsia will develop. Should it increase in spite of depurative expedients and approach 225mm. then, in the interest of the mother, the question of the induction of premature labor should be decided.

Hypertension occurring in women having had a pre-existing chronic nephritis seems to be less ominous and is better borne because the hypertension is more likely to be relative than absolute; in this respect it harmonizes with the weaker

tendency for eclampsia to develop in such subjects, and, as a result, we need not be so pessimistic in our opinions as is demonstrated by our second case. In such cases I would set the mark of imminence at least 25mm. higher, say 250mm.

The first case reported had an increase of 95mm. above the high normal, while the second case had an increase of but 65mm., as her accustomed tension prior to pregnancy was 155mm.; her nerve centers had probably adjusted themselves to this high tension, so the 220mm. point was only relatively high for her.

I say again that in setting these figures for guidance I am influenced by my own experience, as I have not been able to gather evidence on these points from others.

It is quite possible that very impressionable women may develop eclampsia from a lower tension and some might tolerate a still higher pressure but I feel sure that 225mm. is the point where active interference will be justified. Immediately before and during the outbreak the tension is, I think, well above 250mm. and probably close to 300mm.; this, at least, is the experience in uræmic convulsions.

Taking the arterial tension is simple in the extreme and involves far less annoyance than the estimation of urea. Some acquaintance with the physiological variations and the pathological deviations is, of course, necessary to check the results obtained.

The measures resorted to for the prophylaxis of eclampsia are to be found in all our standard works, but there is one method of treatment of some value that has not as yet been accorded a place in many of our text books; I refer to the dechloridation treatment of nephritic œdema.

Some of these cases are the result of the retention within the tissues of chloride of sodium. It is well known that crippled kidneys do not at times excrete the normal quantity of sodium chloride, (10 to 16 grammes) per diem, owing to the impermeability of the kidneys for this substance; next to urea, the chlorides are the principal solid constituent of the urine.

When NaCl, failing full excretion, is in part stored up in the tissues, in order to maintain the proper molecular concentration of the tissue juices, a certain amount of water will be likewise retained; in other words, each molecule of salt requires a definite amount of water for its solution and to maintain this degree of dilution a sufficient amount of water will

be kept in the body. French pathologists maintain that when 5 to 6 grammes of NaCl (one-half the daily excretion) are retained one liter of water will also be held back; this would add two pounds to the patient's weight.

At this rate but a short time would be required for visible œdema to appear. In such cases the withdrawal of salt from the diet has been suggested as a suitable treatment for the œdema dependent upon this chloride retention; the intake of NaCl being discontinued, its excretion, although diminished, soon brings the quantity of NaCl within the body down to the normal quantity when the excess of water is discharged and the system is dehydrated.

It is evident that for success the cases should be selected.

œdema due to the circulatory disturbance associated with heart diseases could not be expected to respond to this dietetic treatment; but cases of œdema, dependent upon such structural changes that, while the chlorides are excreted in diminished amount, yet the kidneys are permeable to liquids, should be amenable to this treatment.

Interstitial nephritis is not prone to be accompanied by dropsy due to the renal disease itself, but when it does occur it is generally due to a failing hypertrophied heart.

It is in the parenchymatous renal degenerations that the most striking results are obtained. Anasarca pregnant women who have no heart lesions and in whom the uncomplicated pregnancy-kidney is the underlying pathological condition should be ideal subjects for the "salt free" diet.

This diet embraces the abandonment of salt in the preparation and seasoning of food; because in their natural state most articles of food contain a very small amount of NaCl this element in the food is practically negligible.

Unsalted bread, unsalted butter, milk, eggs, meats, fowl, fresh water fish, potatoes, rice and sugar are the staple articles.

The popularity of milk as a food in nephritis is now believed to be largely the result of its poverty in chlorides and the resulting dechlorination of the body when it is the sole diet; this diet (milk) in threatened eclampsia is known to be the most successful; milk, however, contains a special diuretic which, as shown by Germain See, is of no mean value:—lactose; 100 grammes dissolved in 2 liters of water and taken as the sole drink in twenty-four hours is said by him to have a powerful diuretic effect, but more particularly in cardiac œdemas.

A salt free diet soon becomes disliked owing to its lack of seasoning. Sodium *nitrate* can be used as a substitute for the seasoning property of salt—3ss being allowed in twenty-four hours. It should not be used in the preparation of food owing to the possibility of its conversion into the *nitrite*, a different agent altogether, which, by the way, is a valuable hypotensive drug in doses from $\frac{1}{2}$ to 3 grains; if scattered over the food at the time of eating this danger is eliminated.

Withholding added salt enables us to secure any degree of dechloridation. Salt is a proximate principle and is essential to proper nutrition. If its elimination from the diet is not followed by reduction in the weight of the body it should not be withheld indefinitely. When the œdema has disappeared it can be cautiously added again to the diet, checking the quantity by the behavior of the weight of the body and the reappearance of the œdema; the use of scales, unattainable except in hospital practice, enables one to keep tab on the effect of chloride retention and to foretell the reappearance of œdema by the increasing weight of the body.

I have a few times resorted to this "salt free" diet, but unavailingly; they were badly selected cases, the terminal stage of combined renal and cardiac disease in which nothing postponed the inevitable.

A PECULIAR FORM OF CLIMACTERIC HEMORRHAGE. Meyer-Rugge (Zurich) says the efforts of gynecologists have brought about a more general interest in atypical uterine hemorrhages and we are more frequently consulted for such affections. Whether cases of cancer will be earlier brought to operation cannot be determined, but hemorrhages appear only late in many instances of this disease. He then calls attention to a form of climacteric bleeding which has not as yet received much attention. As is well known among specialists, during the later years of life the vagina and cervix undergo pronounced changes involving atrophy and especially contractions of the vagina, and these processes also affect the cervix. It thus happens that the os uteri becomes much diminished in diameter, and because of former infection, or inflammations, or retention of secretions, the endometrium may become inflamed and discharges of all sorts retained, so that in the event of a sanguineous retention, the discharge only comes away through the stenosed os uteri in a very thin, but persistent discharge. The os uteri is often so small as to be found only with difficulty, and the introduction of the sound liberates a larger amount of sanæous or serous discharge. The author reports four cases in which dilatation and gentle curettement cured at once.—*Centralbl. f. Gyn.* 1907, 629.

EDITORIAL

THE MEETING OF THE HOMŒOPATHIC MEDICAL SOCIETY OF PENNSYLVANIA.

THE State Society is the great representative body of the homœopathic physicians of this Commonwealth. It is in closer touch with the individual physicians than the American Institute of Homœopathy and yet it is broad enough in its territory and in its aims to be free from the limitations of the local societies. We therefore look with special interest at the annual meetings of the State Society as they give us a fair insight into the character of the medical work which its members are doing and enable us to judge with what harmony and enthusiasm they are working for the cause of homœopathy.

The past year has been an eventful one in the history of our school in this State. We have had to contend with legislative problems of the utmost importance to our school. Fortunately the Legislative Committee of our State Society was composed of men who realized the gravity of the situation and at great personal loss and inconvenience succeeded in preventing the passage of the Single Board Examining bill. It is for this reason alone that Pennsylvania stands to-day as the only large State in which the homœopathic school has been able to maintain its separate board of examiners on an equality with that of the old school. As important as this victory has been, the Committee reported that it is only a temporary one and the fight will have to be fought again at the next session of the Legislature. The importance of unanimous and harmonious action among the members of the homœopathic profession in this fight to maintain legal rights of the homœopathic school was forcibly dwelt upon. During the fight against the Bowman Bill at the last session of the Legislature, the Legislative Committee of the State Society were very much handicapped in their work by the fact that one of our homœopathic county societies passed resolutions endorsing the bill. The old school physicians who were endeavoring to secure the passage of the act, endeavored to convince the legislators that this action in-

dedicated that the entire homœopathic school were in favor of the one board bill. An earnest appeal was made that all local societies act in harmony with the State Society in order that such disagreements may be avoided in the future.

In reviewing the work of the committees we cannot refrain from mentioning the excellent work of the Membership Committee. It is pleasing to note that their earnest efforts to secure new members were not in vain and that the chairman of this committee at the opening session handed in over eighty applications for membership in the Society—the largest number of applications ever received at one time in the history of the Society.

The scientific portion of the Society's work was fully up to the standard. The character of the papers read showed that the members of our school are fully abreast with medical progress and while not neglectful of their special field of therapeutics are ever ready to avail themselves of any new discoveries in surgery, diagnosis, pathology and other departments of medical science. The social features of the session were all that could be desired. Our hosts, the homœopathic physicians of Pittsburg, entertained the Society royally, and good fellowship and harmony reigned supreme. Every member who did not attend the meeting can rest assured that he missed a good thing and should make up his mind to attend the next session at Harrisburg in 1908, if possible.

PROFESSOR HUCHARD ACKNOWLEDGES HOMŒOPATHY.

DR. HUCHARD, of Paris, member of the Academy of Medicine, has frequently shown tolerance and even sympathy for Homœopathy. This time he has gone further and made a true profession of faith. Dr. Sieffert, in the June number of the *Revue Homœopathique Française*, under the heading, "A Capital Event," reports the fact as follows:

"Truth is on the march. The teacher had the kindness to inform me of his decision. It was, for me, a moment of anxiety, when, at the end of his clinical conference on the 10th of June last, at the Hospital Necker, Dr. Huchard came to his profession of faith in favor of Homœopathy.

"Will he dare to reach the end? The assembly, stunned for a moment, portrayed a smile of irony, while the orator made al-

lusion to the ultra-infinitesimal doses extolled by Hahnemann in the last years of his life. But incredulity turned into stupefaction when Huchard, sustained by the clinical results of his therapeutics, without hesitation, and with a firm voice, explicitly acknowledged the principle of similitude. By turns, *similia similibus*, and the opposed effects of drugs, according to doses and the fundamental law of biology, had the honors of the discussion. The experiences of Claude Bernard, of Pfleger, of Hugo Schulz, of Rudolf Arndt, as well as the *law of seconssion* (concussion) of Ritter-Valli, were all successively invoked with a clearness that would allow of no doubt.

"With great commendation the liberal Huchard mentioned the name and labors of our venerable Jousset. He also saw fit to speak of my efforts, and while I felt highly flattered, I could not help but be embarrassed, when I heard my modest personality associated with those of so many illustrious *savants*.

"There were no less than 300 persons present at Laennec amphitheatre, the greater part belonging to the medical profession. Not a single protestation was raised against our doctrine, and repeated applauses followed the eloquent and bold peroration of the eminent master: 'I have the courage of my conviction,' he asserted, 'and I am not afraid to openly proclaim it.'"

"This discourse ended, Professor Lucas Championnière, celebrated surgeon of l'Hotel Dieu, who was present, addressed the meeting, saying: 'My friend Huchard desires to abandon us and retire. We beg him not to allow his decision to prevail. We have much need of him. We wish to establish a free school of medicine, not to conflict with the faculty, but to teach that which cannot be learned in the official school.' (New applauds).

"We hope Homœopathy will find place in this teaching." (Vanden Berghe)—(*Journal Belge d' Homœopathie*.)

E. FORNIAS.

STILL AT HOMŒOPATHY.

THIS time the criticism comes from the West, and the carper is Dr. Marrs, of Peoria Heights, Ill. This illustrious physician, in a paper entitled, "The Present Status of Medical

Practice," published in the *Medical Brief*, after exhibiting a total lack of faith in drugs, after commenting unfavorably on Osteopathy, after jocularly criticising Homœopathy, after stating that the numerous irregular systems of treatment, do good by arousing their patients' subjective faith, ends his argumentation by saying, that the agency of the mind is significant in all cures, no matter what system of medicine is employed. And, while, no doubt, there is some truth in his assertions, for an intelligent practitioner to suggest professional unity, at the same time that he is abusing and berating well-sanctioned and cherished systems of treatment, is certainly preposterous, and I am afraid the Doctor has adopted a bad method of peacemaking. We could have left unanswered his gratuitous and stupid assertions, had he only shown some knowledge of the subject he is criticising and would have given us a reason for so doing. But he indulges in paper-writing at the expense of those who disagree with him on matters therapeutic, and this is surely not a profitable thing to do.

Here are the remarks of Dr. Marrs on Homœopathy: "The homœopathic paradox of what will make a man sick will likewise make him well is about exploded. Intelligent men no longer give the infinitesimal potencies with the idea of getting results from the remedies, *per se*. The writer has demonstrated the inertness of many of the little pills by swallowing them in considerably quantity." Now comes the "taffy": "The Homœopath is usually a scholarly physician and is a good surgeon." Why not? You can't buy gray-matter with money. "When he wants the patient to know that he is taking something our homœopathic brother departs from the absurd Hahnemannian laws, and does not give a medicine produced by diluting a drop or grain of some drug in a barrel of water." What does he give? Is this the kind of Homœopaths that have come under the learned observation of Dr. Marrs? "As I have before pointed out, the homœopath very carefully searches out symptoms, and directs the treatment toward them. The patient associates his symptoms with an alleged specific, and thus the *cure idea* is better established in his mind."

Thus speaks a man, belonging probably to a school, where every practitioner has his own therapeutics where standards of disease are made by the groupings of symptoms; where individualization is out of the question; where the work of Penelope is going on all the time; where every man suits himself

and draws material from the common assorium, or the charnel-house of assuming knowledge; where no uniform advice can come from selected source or epistolary consultation.

Let any sensible person who knows what Homœopathy is and what can be expected of it, dissect and analyze the diatribe or invective harangue of the learned Dr. Marrs. In the first place, he confounds Homœopathy with Globulism. He does not seem to know that the mutual correspondence between disease and drug and not the size of the dose is what constitute the homœopathic article of faith. A large dose of any remedy will be homœopathic, if that remedy has produced on the healthy organism symptoms similar to those of the case we intend to cure, and will, for obvious reasons, be only efficacious when given in any dose below the scale disturbing action. On the other hand, an infinitesimal dose of a remedy which presents no similitude with the case to be treated should be considered an allopathic dose. Of course, Homœopathy, being only a system of therapeutics, has its limitations, and often has to call to her aid other branches of medicine. But Homœopathy has also its precepts, which emanate necessarily from the very law of similars. These dogmatic and *imperative precepts* are: *the pure experimentation of drugs on the healthy human organism; the strict individualization of all pathological cases; the single remedy, and the minimum dose.*

With the rigorous observation of these binding precepts, we have not only corrected the shameful abuses of old school polypharmacy, but anticipated the valuable results obtained by biological and chemical researches, with infinitesimal quantities of matter, and above all, created and established a system of therapeutics, which by repeated clinical verifications has become the rock of confidence of its followers, and a benefaction to suffering humanity. These are no speculations but facts well known to those who have reaped the benefits of its curative power.

What an inglorious task, then to decry or condemn a system which has already witnessed imperturbably in the medical arena the fall and tumble of so many cherished theories and fancies, and outlived the rude attacks of combined assumption and coarse bigotry.

As to the manner employed by Dr. Marrs to test the inertness of our little pills, it suffices to say that the experiment was too silly to require refutation. And equally silly is his re-

mark about the dilution of a drop or grain of some drug in a barrel of water. It shows, indeed, that our learned critic does not keep with the times. Can the best selected seed grow in the seashore? Can an inflamed eye stand the glare of an electric lamp? Does our critic know what a colloidal metal is, how it is prepared, what transformation it suffers, and the amount of the original metal it contains? Has he heard anything about the experiments of Nagali, Oswald, Van t'Haff, Jousset, Le Dantec, Villechauvaix, Vannier, and many others, on the toxic power of infinitesimal quantities of metallic substances, as well as on their application to prophylaxis and therapeutics? "Plough deep while sluggards sleep, and you shall have corn to sell and keep."

E. FORNIAS.

UNEXPECTED CURE OF INOPERABLE CANCER. Weindler (Dresden) reports three cases wherein this result was observed. The first case was that of a woman aged fifty-one years, who for six months had irregular hemorrhages and an offensive discharge. The uterus was enlarged and but slightly movable from involvement of the parametrium. In former years she suffered severely from a peritonitis following childbirth. Vaginal hysterectomy was undertaken in December, 1900, and while making a preliminary curettement of the cancer, the instrument entered a deep cavity containing soft material, and it was thought that the designed operation could not be performed because the infiltration extended much more widely than at first apparent, and because of the danger of wounding the bladder and rectum. The case was then energetically treated with the actual cautery. On two successive occasions the case was subjected to cauterization with strong carbolic acid. Contrary to all expectation the funnel-shaped cavity healed very well, and the remains of the uterus lost its sensitiveness. The parametrium became softer. The patient recovered apparently, and was free from hemorrhages and discharge. In the first succeeding years the bodily weight remained about the same, but is now slowly increasing. The diagnosis was confirmed histologically. The other two cases were seen in February, 1901, and were regarded as inoperable. Both were treated as above outlined, and the results were much the same. The author refers to other published cases where similar results were obtained from such treatment.—*Centralbl. f. Gyn.* 1907, 632.

GLEANINGS

TESTS FOR OCCULT BLOOD IN THE FÆCES.—From an experience of nearly 1,000 examinations of gastric contents and stools, mainly at the Boston City Hospital, F. W. White finds that the guaiac or aloin test for invisible blood is, in spite of exceptions, the most valuable single clinical method recently developed for the recognition of latent cancer and ulcer of the digestive canal, and as a guide in the treatment of peptic cancer. It consists in shaking up 10 cubic centimeters of gastric contents or fæces, rubbed up with a little water, with 3 cubic centimeters of glacial acetic acid, and then extracting with an equal volume of ether by gently shaking back and forth. The tube is then allowed to stand till a clear layer of ether separates; the latter is then poured off and tested for blood by the addition of 10 drops of freshly prepared tincture of guaiac or aloin and 30 drops of hydrogen peroxide or well-ozonized turpentine, the latter preferably when aloin is used.

In the presence of blood the guaiac gives a clear blue color to the mixture, while aloin gives a clear, cherry-red. The method is very delicate as well as very simple and practicable, and should be invariably used in conjunction with the other means of physical examination. Its value depends on the care with which other sources of bleeding are excluded. It has most value with the stools, when both positive and negative results are significant. With gastric contents, positive results are often misleading, but negative results are significant. One should never be content with a single test, however much it may agree with previous opinion of the case.

In gastric and duodenal ulcer the chief value of the test is: (a) in distinguishing ulcer from a disease of the biliary passages or from a neurosis; (b) as a premonitory symptom of severe hemorrhage; (c) as a measure of the results of medical treatment, and as an aid in deciding when surgical measures are indicated; (d) in prognosis, in gastric cancer, in diagnosis from anacid gastritis, achylia gastrica, pernicious anæmia and similar conditions, and from chronic gastric ulcer. In general, the test is of great value in discovering or ruling out hemorrhage in a suspected case.—*Journal of the American Medical Association*, February 9, 1907.

NEURALGIA, AND ITS TREATMENT.—By Dr. Schultze (XXIV Congress for Internal Medicine, April, 1907). Neuralgia is defined as a disease in which pains originate within certain portions of sensory nerve-tracts, following the course of these tracts and characterized by their great severity and periodical occurrence. From the clinical point of view, the presence or absence of pathological changes in the nerve is a matter of no moment in this connection. Where such changes exist, they naturally claim the chief interest. The etiologic factors entering into consideration are as follows:

1. Mechanical causes, such as pressure and traction. A common ex-

ception is presented by tumors, which may not give rise to neuralgia, notwithstanding considerable pressure. Special factors may be involved in those cases where neuralgia develops, possibly as the result of adhesions such as have been observed in amputation stumps and may be assumed in cases of sciatica. It is doubtful whether simple hyperemia may give rise to neuralgia, even in narrow bone-channels. Bile-stone colics and intestinal colics have recently been referred to neuralgia due to traction. The bowel and the gall-bladder are assumed as pulling upon the nerves of the biliary passages and the mesentery, and thus producing the painful attacks.

2. Neuritis and perineuritis play a very important etiologic part in the neuralgias, as for instance in the neuralgic pains of tabetic individuals, in ordinary rheumatic sciatica, in the neuralgia of patients having gout, diabetes, alcoholic intoxication, or infectious diseases. The neuralgia of malaria remains obscure; neither is the neuralgia following upon a cold readily accounted for, but this probably belongs to the group of the inflammatory neuralgias.

3. Neuralgia due to psychic influences, hysteria and neurasthenia, usually enters into consideration in the internal and articular neuralgias. This group likewise includes the occupation neuralgias and those due to overwork. Here it is doubtful whether a degeneration exists, or whether the disease is caused by fatigue-products.

4. Neuralgia may be induced by poisons, which are either introduced into the body from without, or originate within it. Constipation, in which toxins presumably pass over into the body, is a familiar cause of neuralgia.

5. Neuralgia and arteriosclerosis must be brought into connection, although the exact relation is unknown. The same remark applies to

6. Neuralgia upon an anemic and sclerotic basis; the connection is probably, as a rule, of a psychic character. Schultze never saw a case of the severe forms of neuralgia which have been described in sclerosis.

Not much is known concerning the pathogenesis and pathological anatomy. This is partly due to the fact that, as a rule, only resected segments of nerves are examined, whereas an accurate examination of the nerves from the terminations up to the ganglia and farther towards the center has not as yet been made. For ordinary rheumatic sciatica, there are certain findings in the line of reddening and fine cobweb-like adhesions, which thickens the nerve. In other cases, obliteration of the vasa vasorum and inflammatory changes around the nerves have been met with. Bardenheuer found edema and hyperemia in his cases, and Witzel observed cicatricial masses connecting the nerves with the bones in amputation-neuralgia.

With special reference to the symptomatology, it is noteworthy that the familiar pressure-points may be either absent or present. The test should not be limited to the various locations as indicated, but the surroundings must be investigated at the same time. Over-forcible pressure is to be avoided. The determination should never be based upon direct questioning, but by the observation of twitching, defensive movements, and changes of the pulse-rate. The existence of hyperesthesia or of anesthesia probably points in all cases to organic changes in the nerve. The reflexes are absent in a number of cases.

The diagnosis of the severe neuralgias, such as sciatica and trigemina,

neuralgia, is not difficult. There are certain conditions which are not true pure neuralgias, such as Bernhard's paresthetic neuralgia in the region of the fascia lata; achillodynia, an affection of a small bursa situated in the vicinity of the Achilles tendon; tarsalgia and metatarsalgia, usually in the area of the metatarso-phalangeal joint of the fourth toe. The differential diagnosis in sciatica must be made from coxa vara, which is demonstrated by the X-ray. Confusion with diseases of the symphysis, the sacrum, etc., is more readily guarded against than is confusion with

1. Intermediate claudication (Erb), where the pain is absent during rest, and appears during walking.

2. The chronic rheumatic lymphangitis recently described by Wilms, which occurs essentially in the area of the tibial nerve, as a rule in women who have suffered from articular rheumatism. Flatfoot may likewise simulate sciatica. In bilateral sciatica, disease of the cauda equina must be kept in mind.

In trigeminal neuralgia, frontal sinus disease most frequently enters into consideration for the differential diagnosis. In the course of two and a half years, Schultze found catarrh of the frontal sinus six times among 16 cases. Symptoms pointing to a meningeal or cerebral affection should be carefully looked for in these cases.

Brachial neuralgia may be simulated by diseased conditions of the scapula and the vertebræ. It is not uncommonly mistaken for paralysis agitans. The pain is often of a psychic character.

The separation of the hysterical and neurasthenic neuralgias from the other forms is of especial importance. It must be kept in mind that 1, the classical pressure-points are usually absent; 2, the phenomena are modified by psychic influences, and 3, subside as the result of various curative agencies; 4, the localization is not stated corresponding to the course of the nerve.

The treatment includes:

1. Chemical remedies, such as aconite, strychnia, laxatives, etc. If these fail,

2. Physical procedures, the simplest of which are Naegeli's manipulations, which fail, however in the severer cases. In many cases, the galvanic current has been found valuable, but it is not generally reliable. Warmth and heat in various forms are more efficient. Bier obtained very good results from hot air douches and massage. Among 20 severe cases who came to him for operation, he had very satisfactory results in 12 without operating upon them. Warm sand-baths, and Scotch douches, were found useful by Schultze. Nerve-stretching is indicated in all cases with perineuritic adhesions, but the occurrence of paralysis after its application should be kept in mind.

3. The mixed physico-chemical treatment consists in injections of morphin, aconitin, silver nitrate, alcohol, common salt, solution of osmic acid, methylene blue, air, water, antipyrin, etc.; directly into the nerve-tracts. Schlösser's and Lang's procedures deserve special mention in this connection. Schultze obtained in four cases a complete freedom from pain after twice 24 hours. Stretching is recommended in addition, as soon as relief from the pain has been secured.

4. Notwithstanding the number of remedies, surgical operation is inevitable in certain cases. Division and resection of the nerves is promptly

followed by recurrence. Krause's ganglion-resections are the only rational operations; still, he has a mortality of 11%, against a mortality of 22-26% of other operators. Moreover, failures have been reported (Garré). In order to obtain positive results, it has been recommended to fill the exit orifices in the bone, or to pull the nerves out, instead of smoothly dividing them in resections. Bardenheuer in five cases of sciatica obtained a permanent cure in four cases by removing the nerves from the bony canals and imbedding them in soft parts. Schultze does not accept the theory of Bardenheuer, to the effect that this operation serves to relieve the nerve from its hyperemia, since he does not admit the hyperemia as an etiologic factor.—*The Post-Graduate*, July, 1907.

THE CHARACTER AND TREATMENT OF MEMBRANOUS ENTERITIS (COLICA MUCOSA).—Albu (*Therapie der Gegenwart*, June, 1906). The designation "membranous enteritis" as a rule includes two different diseased conditions, namely, membranous colitis in the restricted sense and so-called colica mucosa. Both these pathological conditions have in common the chronic obstipation and discharge of tubular masses of mucus, but colica mucosa presents another symptom which is absent in true membranous enteritis, namely, the appearance of intermittent abdominal colics. The pathogenesis of the two affections likewise has a very important distinction, membranous enteritis being, as a rule, caused by atony of the large intestine, whereas colica mucosa is due to tonic-spasms of the bowel wall. The latter disease accordingly constitutes an irritative neurosis of the bowel, based upon a primary purely nervous spasm of the colon.

The treatment must, therefore, vary with the condition present. Colica mucosa requires, in the first place, the control of the intestinal spasms. This is accomplished by:

1. Application of warmth, in shape of hot compresses (linseed poultices, hot plates or bottles, etc.) and hot half or full baths.
2. Narcotics, in shape of suppositories and belladonna (0.01 to 0.02 pro dose), to which may be added the same amount of codein. The author objects to the use of opium in any of its preparations, because its sedative value is offset by the occurrence of intestinal paralysis under its prolonged employment, resulting in increase of the existing constipation, and in aggravation of the intestinal weakness. Morphine is indicated only in the presence of severe paroxysms.

Attention must be chiefly directed towards the removal of the tonic contractions of the bowel. These indications are met with by:

1. Prolonged half or full baths, warm, lasting from 20 to 25 minutes, three times weekly.
2. Warm enemata with oil (one-half to one pint linseed oil, etc.), or oil mixed with soapy water, to be introduced very slowly and under low pressure, to remain for a long time.
3. For nutrition, a milk and vegetable diet, in form of porridges, meaning the exclusion of all husks, shells and cellulose constituents in general. The vegetables are therefore, to be served "mashed" and the fruit in shape of "jams." The food must be very carefully prepared, so as to avoid the irritation of the bowel wall caused by indigestible vegetable constituents, which results in contraction. At the same time, the food should be bulky, so as to advance of its own accord, maintaining the bowel in constant gen-

tile motion. The internal administration of the bromides and other nerve tonics is useless. Permanent results in the treatment of neurasthenia can be looked for only from physico-dietetic methods.

The treatment of membranous colitis is not the same. The atony of the bowel is here best improved and relieved by the following measures:

1. Careful massage of the large intestine with the hand or a vibratory apparatus, preferably when the bowel is empty.

2. Faradisation of the large intestine in frequent brief shocks (in relaxation of the abdominal coverings).

3. A more or less coarse vegetable diet, under simultaneous use of buttermilk, kefir, honey, jams, dried fruit, grapes, gingerbread, graham bread, milk, sugar, etc.

4. Glycerine enemata and suppositories; cold water enemata.

The employment of astringent injections is strictly contraindicated in either of these conditions, because they serve to increase the irritation of the bowel, and with it the formation of mucus. Moreover, they actually provoke intestinal contractions. On the other hand, it is advisable to remove the mucous membranes by regular lukewarm injections of sodawater or oil enemata. In case of failure, a mild laxative, such as castor oil, may be administered. The longer the mucous membranes are permitted to remain in the bowel the greater is the danger of the appearance of colic.—*Medical Rev. of Rev.*, July, 1907.

ACUTE OTITIS MEDIA.—W. J. Leach, M. D., has given an excellent resume of the treatment of Acute Otitis Media in the *Journal American Medical Association*. In the acute simple otitis media this consists in alleviating the pain and treating the nose and throat with cleansing antiphlogistic agents to facilitate drainage and ventilation to the tympanum by the Eustachian tube as soon as possible. The pain is best relieved by instilling within the external canal a 4 per cent. solution of cocaine hydrochlorate, preceding it with a douche of hot boric acid solution, having the patient lie on the opposite side to the one affected and then applying heat and repeating the douche and cocaine frequently, if necessary. If the bulging of the drum and the pain increase after 36 hours' treatment, then do a myringotomy and drain thoroughly, making the incision in the most dependent part of the bulging portion of the drum, which will usually be found in the posterior-inferior quadrant. Myringotomy can be done without pain after the instillation of a 10 per cent. solution of cocaine with a 1-1000 solution of adrenalin. If the drum is not incised it will finally rupture and slough with ragged edges and frequently does not close, leaving the ear exposed to the constant danger of infection. By relieving the intratympanic pressure and tension of the membrane by means of the incision the nutrition and reparative power of the drum are preserved, and, as any clean-cut wound will heal more quickly and surely than one made by sloughing, we shall, therefore, lessen the danger of permanent perforation. But, more important than all, by early incision we lessen the danger of bacterial invasion of the mastoid cells, with its consequent mastoiditis. The cavity should be evacuated and good drainage kept by aspiration and by douching with warm antiseptics. Hydrogen peroxide may be used as a cleansing agent and the ear mopped out with dry cotton until it is perfectly clean; then with a hand powder-blower fill the canal one-third full of boric acid

and insert cotton. This treatment and dressing should be performed by the doctor or nurse; otherwise it is poorly done. When the discharge has ceased use 10 per cent. ichthyol in liquid petroleum instead of the powder and continue until the drum is healed, during which time the nose and throat must be constantly treated. We begin now with special measures to restore hearing; then after each naso-pharyngeal treatment we practice Politzerization, which has for its special object free ventilation of the tympanic cavity. Do not depend on the family for any part of the treatment; if you do you will fail. If tympanic ventilation is interfered with by stenosis of the Eustachian tube it must be opened or closing of the drum will not take place, and then we must remove any and all nasopharyngeal obstructions, such as adenoids, enlarged tonsils, septal spurs, enlarged turbinates, polypi, deviated septa, etc. If there is simply a Eustachian salpingitis we may have to resort to bougies. As these nasopharyngeal abnormalities are the greatest cause of tympanic disease, as well as of many other troubles, it is far more expedient to remove them than to wait and only partially succeed in restoring the middle ear after it has been disturbed by these abnormalities. Every pathologic pharyngeal condition promptly treated as it arises will greatly reduce chronic middle-ear disease.

PREMATURE LABOR IN CONTRACTED PELVIS.—Cooke (New York) has modified the usual method of performing this operation. Before any instrument can be inserted with safety into the gravid uterus the cervix must be softened and somewhat dilated by suitable preparatory treatment. This is accomplished by packing the cervical canal, and to a certain extent, the lower uterine segment with 5% iodoform gauze through a canula gauze packer. The vagina is also filled with gauze. In some instances this will bring on labor. A primigravida, and in many instances a multigravida with no cervical laceration, will often present a rigid cervix with little softening. Then the author recommends the introduction of a sterilized bougie in the usual way. In a multigravida with a short, softened or dilated cervix, he uses an expansion ring, which is constructed of a soft catheter into which has been inserted a watch spring, and the ends of the catheter sewed together. The ring is tied around with a piece of tape so as to form a figure of eight, and after the ring is inserted into the cervix, by pulling on the tape the latter is untied, and the vagina packed with gauze. The ring thus makes slight but persistent pressure on the cervix and causes rapid dilatation and stimulates the onset of labor pains.—*Amer. Jr. Obs.* Vol. 55, 753.

THEODORE J. GRAMM, M. D.

PROPHYLAXIS IN SYPHILIS.—Maisonneuve (Paris, 1906) reports his experiments with 10-per-cent calomel ointment as a prophylactic in syphilis recommended by Metchnikoff. Metchnikoff's original experiments were with mercurial ointment, but he found this was too irritating to the skin to be used as a general measure. Maisonneuve, after submitting himself to a careful personal examination, in order to definitely preclude any evidences of syphilis, allowed himself to be inoculated, in the sulcus coronarius on each side, from the virus of two initial lesions from two well-defined cases of primary syphilis. This in the presence of Metchnikoff and four other physicians. The skin was scarified and the virus thoroughly

rubbed into the abraded surface. One hour after the inoculation the parts were treated with 10 per cent. calomel-lanolin ointment. Apes which were inoculated with the same secretion showed typical lesions of syphilis; others, likewise inoculated, but also treated with calomel ointment, remained free from syphilis. Maisonneuve submitted himself to careful examinations for three months, without showing the slightest evidence of syphilis, and the wounds promptly healed within seven days.—*Southern Medicine and Surgery*, February, 1907.

THE TREATMENT OF HEADACHES. Beverley Robinson, M. D. (*The Monthly Cyclopædia of Practical Medicine*, May, 1907), states that, to begin with, the ætiology must always be considered and the cause banished, if good results are possible. Anæmia must be cured, gout or rheumatism specifically treated as far as may be, febrile conditions ameliorated, and then with proper time the patient recovers—it may be altogether, it may be only for a time. If an alcohol habit be marked, it should be gotten rid of, and tobacco excess moderated. Lead poisoning of certain trades, manifest malarial cachexia, insufficient renal elimination, with premonitory headache of uræmia, are all to be properly treated, or else headache continues. When syphilis is present and there is nocturnal headache with insomnia, iodides in increasing doses are our mainstay. Nasal obstruction, adenoids and hypertrophied tonsils must be removed. A sagging or retroverted uterus should be raised or replaced in normal position. Errors of menstruation must be corrected by general and, in minor degree, by local measures. But when we reach digestive disturbances, acute or chronic, we touch really the keynote of very many headaches. An error of diet, some special food, or merely a surfeit of too many foods, will give a headache, which five grains of blue mass, followed by a saline draught, will alone relieve effectually and rapidly. A neuropathic condition is shown to be the efficient cause of very many, indeed the greater number of miserable headaches. The most prevailing symptom accompanying the headache is disordered digestion—dyspepsia, constipation, diarrhœa. Proper neutralization and elimination through the digestive tract can usually be of primary and greatest service. And here, particularly, we would lay great stress upon the sour milk diet and the moderate use, morning and night, of sulphate of soda.

When we come to relieve migraine, we can do little more or better. No treatment will surely prevent the return of the paroxysms, simply because we have here to do with a constitutional neurosis, in which heredity is the ruling power. A permanent and absolute cure is a difficult undertaking, and to be fair to our patients they should be informed of this fact. In most cases of sick headache the final and only appeal left us is, unfortunately, the hypodermatic administration of morphine.—*Med. Rev. of Reviews*, August, 1907.

THE STATUS OF THE STREPTOCOCCUS PYOGENES IN THE BACTERIOLOGY OF THE LOCHIA OF NORMAL PUERPERAE. Some quite material problems in the important question of puerperal auto-infection have been solved by Schenk and Scheib, of v. Franke's clinic, in Prag. After reviewing the bacteriological studies of the several investigators since the time of Doederlein's important article, they say from most of the observations named, there is

no doubt that streptococci occur in the lochia of normal puerperae. Two points, however, remain to be determined, namely, on what day do streptococci appear in the lochia normally, exclusive of such cases as show even a slight elevation of temperature after obtaining the secretion, and who must therefore be regarded as abnormal. Secondly the character of the streptococci found and its relations to the streptococcus pyogenes has not been sufficiently determined. In this article the authors try to answer these questions. They examined 100 cases, and tested the secretion up to the third or fourth day and also in the later days of the puerperium. They found that it may be stated in general that the uterine cavity of the normal puerpera is usually free from pathogenic bacteria during the earlier part of the puerperium, while in the later days the uterus frequently contains them. In some of the patients whose lochia contained bacteria on the third or fourth day, it could be observed that the puerperium did not progress normally, though others of this class did. The group of cases containing bacteria in the later days (7th to 9th) did not have temperature elevation, a fact previously demonstrated by other authors. The reason why these streptococci did not cause disease has been believed by some observers to be because the streptococci were not pathogenic, but saprophytic. The authors consider this question further by studying their peculiar characteristics, morphology, staining properties, culture tests and action in animal experiments, and agglutination tests. Of course these technical details cannot be reviewed at present, but the conclusions reached by the authors are as follows:

More than one-third of normal cases have streptococci in the uterus in the later (7th to 9th) days of the puerperal period. These belong partly to the variety of streptococcus longus, and partly to the streptococcus brevis, that is to say in most cases they show all the characteristics, morphological, staining, and cultural, of the pathogenic varieties of streptococci, as they have lately been described by v. Lingelsheim. These streptococci grow well in the presence of oxygen, and also anaerobic, though their virulence is then impaired. Many of them are virulent for mice. Serum from rabbits immunized with such streptococcus growths demonstrates virulence in the agglutination test with streptococci taken from patients. It has not as yet been possible to satisfactorily demonstrate why streptococci are pathogenic in the earlier days, and not so in the later days of the puerperium.—*Zeitschr. f. Geb. u. Gyn.* 56, 325.

THEODORE J. GRAMM, M. D.

METRRORRHAGIA SYPHILITICA. Muratow (Kiew) calls attention to the metrorrhagia affecting syphilitics. He says the subject has not been very thoroughly studied by gynecologists, probably because the majority of syphilitics do not come to them for treatment. The author gives a detailed report of one closely observed case in which locally the conditions found were diffuse superficial erosion of the cervix and a mucous and bloody discharge from the os. He also refers to an enlargement and sensitiveness of the left uterine artery. The patient rapidly recovered from the usual antisymphilitic treatment. The literature of gynecological diseases caused by syphilis is not very abundant, but a few articles on the subject have appeared. It seems probable, however, that in the uterus all stages of syphilitic tissue changes may occur, such as erosions, gummata, superficial

and deep ulcerations, changes in the vessel walls, &c. This view is confirmed by a study of the changes which occur in the stomach in syphilis. In the latter organ vessel changes may be so destructive as to terminate fatally. In the metrorrhagia due to syphilis, the uterus is not enlarged, and not sensitive to palpation. Its consistence is hard; the cervix somewhat hyperæmic. No early recognizable changes exist in the adnexa. Such patients have usually undergone all sorts of treatment without avail, but antisyphilitic treatment is rapidly helpful. Another class of cases comprises young girls having menorrhagia or metrorrhagia. These patients are frail, weakly and anæmic. Neither their history nor local examination pointed to syphilis. Since the usual treatment was without effect, but antisyphilitic treatment rapidly curative, the supposition is permissible that these cases had a latent form of hereditary syphilis. The author believes that uterine hemorrhages due to syphilis are not rare, and obstinate cases should be closely examined for syphilis and treated accordingly. Curettement will then be more rarely called for.—*Zentralbl. f. Gyn.* 1907, 830.

THEODORE J. GRAMM, M. D.

ICHTHYOSIS: TREATMENT AND REMARKS ON. Russell H. Boggs, in the July issue of *the Journal of Cutaneous Diseases*, discusses the question of ichthyosis in a general way, differentiating between ichthyosis simplex and ichthyosis hystrix, and points out the differentiating feature of xeroderma. Boggs contends that the condition known as xeroderma is not a milder form of ichthyosis simplex, as usually contended, but agrees with others that xeroderma is a condition intermediate between keratosis pilaris and ichthyosis simplex. The author further states that the disease is a chronic one, usually beginning in early life, being associated with lack of proper function of the sweat and sebaceous glands. There is generalized harshness and dryness of the skin, which is associated with marked scaliness and follicular papulation, occasionally warty or horn like. The condition which is associated with simple scaling is known as ichthyosis simplex, and where there is an extreme condition, as ichthyosis hystrix. "The simple form is usually the one encountered, the skin is dry, thickened, wrinkled and scaly; the extensor surfaces of the limbs and trunks show pin head nodules, covered in the centre with scales, due to the excessive collection around the follicles, this condition is known as keratosis pilaris." The author goes on further to point out, that the condition is decidedly better in the summer time and much worse in the winter; while the coloration of the scales depends upon the length of time the disease has existed. In the light forms the scales being of a pearly character, while in the older forms, they are of a dirty yellowish or brown color. The hystrix form of the disease does not tend to generalization, but is more apt to be localized. This form of ichthyosis is an exaggeration of, or higher development, of the milder form, and according to the author is associated with marked hypertrophy of the papillæ, which forms verrucous spiny patches. As to the question of diagnosis, Boggs states that "the history of the disease, its congenital or hereditary nature, the harsh dry skin with thickened epidermis, and the plate like scaliness, with frequent follicular elevations, with its greater development on the extensor surfaces, and the absence of inflammatory symptoms, are usually sufficient to differentiate ichthyosis from other cutaneous

diseases." With reference to treatment the author states that the greater improvement is obtained when treatment is begun in early life; and that most authorities consider internal treatment useless. Climatic changes often do good; local treatment should have for its object the keeping of the skin in a soft, pliable condition, and the removal of scales. For this purpose of softening the skin, lanoline, vaseline, olive oil, cocoa butter, etc., are advised, while alkali, steam, hot air, and sulphur baths, with the use of strong salicylic ointments are advised for the removal of scales. Occasionally it may be necessary to use the curette, afterwards touching with mild caustics.

RALPH BERNSTEIN.

A CASE OF TRANSITORY LENTICULAR OPACITY IN BOTH EYES IN A DIABETIC PATIENT. Adolph Alt, M. D., reports the following case: Woman, æt, 28, myopic two diopters with family history of diabetes, at third term of pregnancy showed trace of sugar in her urine, which disappeared under treatment, although she complained continually, and later there was a dead fetus. Following this occurrence, she lost flesh rapidly and sugar was found in varying quantities. The patient failed to follow directions, and the amount of sugar increased. One day, at 11 in the morning, there suddenly appeared a mistiness, first over the right eye, then over the left, rendering reading impossible. At five o'clock Alt made an ophthalmoscopic examination, which showed an opacity directly under the capsule, with some radii, a bluish appearance, and covering the pupillary area. The left eye presented six opaque radii with a slight haze between. The fundus in this eye was normal.

The urine at this time contained a very large amount of sugar, the specific gravity being 1.056.

After two weeks treatment, which the patient now carried out faithfully, there remained only a haze in the right cortex, the left being clear. Both fundi were normal and reading was resumed.

Fourteen months later the patient died in a diabetic coma, the eyes remaining apparently normal since the first attack. Alt's opinion coincides with Heubel's, which assumes that sugar exerts a direct deleterious influence upon the lens. The infrequency of diabetes explains the infrequency of reported eye examinations.—*Amer. Jour. of Ophthal.*

WILLIAM SPENCER, M. D.

AN EPISCLERAL OSTEOMA. The patient, male, æt, 50, white, Irish descent, complained of sensation of foreign body in the right eye, accompanied by burning, itching and photophobia. Inspection showed apparently a foreign body, two-thirds of the size of a pea, imbedded in the sclera and surrounded by moderate injection to an extent of five or six millimeters.

Upon removal under cocaine, the mass proved to be bony, five by two by four millimetres in size, irregularly oval and faceted at its attachment to the sclera. A fibrous capsule enveloped the mass, which was firmly adherent to the sclera, midway between the external and superior recti muscles and about five millimeters posterior to their insertion. The author states that the condition must be extremely rare, as Saemisch records twenty cases, only one of which is accredited to America, being reported by Loring twenty years ago.

In nineteen of these cases, the growth occurred at the same point, as Vinsonhaler's case, leading Saemisch to believe the cause to be an embryonal fault. Spencer Watson reported the remaining cases where the growth was found between the superior and internal recti muscles, believing it to be an ossification of a particle of cartilage. The age of the reported cases varied from three months to thirty-six years, Vinsonhaler's case being exceptional, as the patient was fifty years of age. In none of these cases did discomfort arise until discovered accidentally. Vigues reports the histological findings as identical with the structure of the frontal bone. Frank Vinsonhaler, *Amer. Jour. of Ophthal.*

WILLIAM SPENCER, M. D.

PULSATING EXOPHTHALMOS-LIGATION OF ORBITAL ARTERY—RECOVERY. Lewis F. Parker reports a case of unusual character. The patient, a working man twenty-five years old, had received a blow on the back of the head which rendered him unconscious, and from which he suffered for several weeks. He then noticed a fullness in his left eye and a sensation of beating in the head, which continued for a year before he applied for treatment. At that time the eye protruded downward and outward, the displacement being forward 10 cm., outward 6 cm., downward, 2 cm. He had heteronomous diplopia. The eyeball was highly injected, pupillary action normal, with slight fullness of retinal vessels. A marked bruit could be heard over a space an inch in diameter at the inner orbital angle. Vision in both eyes was 20-30. A tense, pulsating tumor was perceptible through the upper lid. He was almost in a state of nervous terror, with rapid pulse, flushed face and voice tremulous.

The case being evidently an aneurism of the ophthalmic artery which seemed to involve but one vessel, it was decided to ligate it without removing the eye. Under a profound anesthetic the lids were widely opened, a careful dissection showed that the artery had curved upon itself, the largest portion having the diameter of a man's little finger. The eye ball being diverted to the temporal side, the tumor was found to extend backward, the diameter lessening until it wound around the optic nerve near the optic foramen. Several ligatures were placed around the enlarged vessel until the artery was tied off within the orbital cavity. The tissues were then coapted and retained by sutures. Ice-bags were applied and healing took place without reaction. The bruit and proptosis disappeared, but some divergence remained. Three years later the patient was seen, both eyes were apparently normal. The disk of the left eye showed a slight paleness, vision in both eyes equal and the same as when first seen, a slight normal deficiency being present. Interest in this case centers in the fact that although a portion of the aneurism extended outside the orbit, a ligature within controlled it.—*Ophthalmic Record.*

WILLIAM SPENCER, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

THE RIGHT MEDICINE. Who will prove that we do not need all sorts of potencies to cure human kind? Who will demonstrate that the third trituration of aurum will correspond exactly in all cases, and at all times, in its rhythmic power, to the vibrations of that gloomy mind that wants to destroy the body it lies within? When we have measured the rhythmic activity present in a given organism, then and there may we use our scales and microscopes and reagents to weigh and detect the ponderable matter that shall contain the potency required for its cure. Until then, we had better stick for Hahnemann, or walk into the laboratory of Mr. Bardet, that the Psalmist may not say of us: "*Oculos habent, et non videbunt; aures habent, et non audient; nares habent, et non odorabunt; manus habent, et non palpabunt.*"—R. del Mas, Ph. D., M. D., in *The Critique*.

CROWDING IN. Those who read the journals of other schools of medicine must have noticed how they are shouldering into homœopathic therapeutics but never give a word of credit. In a journal before us we find a great many drugs recommended on what are purely homœopathic indications, but the men who discovered all this by proving the drugs, are given no mention. One writer makes the statement: "I advise the treatment of symptoms alone, without reference to diagnosis." Well, it will be better for their patients, but it does not seem fair, or professional, that they should refuse to acknowledge the source of their new therapeutics.—*Hom. Recorder*.

SOME POINTERS FOR FRETFUL AND IRRITABLE CHILDREN. By J. C. Fahnestock, M. D., Piqua, Ohio. In summer when child is fretful and peevish, cries when touched or even looked at; wants to be strictly let alone; gets out of humor, irritable, fretful.

Ant. crud., Ars., Cham., Cina.

An irritable disposition, nervous and hard to please. Apis.

A child that will not be quieted, the more friendly the persuasion used the worse it gets; your petting and caressing are of no use. Cina.

When the child weeps if spoken to.

Nat. mur., Med. Sil. Tub.

When child is spoken to it becomes irritable and starts to cough. Ars.

When child becomes fretful and irritable when spoken to compare: Ars., Cham., Gels., Iod., Nat. mur., Nat. sul., Nux and Rhus.

When child is irritable, fretful, wants to be carried and great distress after nursing. Cham.

Very cross and fretful, with bloody mucous stools. Cham.

In bronchial troubles, one cheek red the other pale, must be carried to be appeased. Cham. Tub.

The Cina baby is the irritable, cross, fretful one, is cross and troublesome as long as it does not sleep.

When the child is irritable the irritability almost amounts to mania, we must study Mar. ver.

When the baby frets and worries, is not cross but sleepless, Coffee is likely to be indicated, all other conditions agreeing.

In summer complaints, when child is irritable in early part of night, and very worrying and sleepless, the balance of the disorder will likely point to Pod.

When the child is cross and fretful, with alternate constipation and diarrhœa. Nux. Sul.

In children suffering with measles, when they become irritable and sensitive, weep and are wakeful, Coffee will likely be indicated.

Child weak, irritable, milk does not agree, vomits curdled milk; after vomiting the child falls back exhausted and falls asleep. It awakens fretful, hungry, eats and then vomits; is exhausted, sleeps. Is cured by Aethusa potentized to the plane of its sickness.—*The Medical Advance.*

AN X-RAY CASE. A lady from Brighton, three years ago, came under my care, suffering from what afforded every clinical evidence of being cancer of the breast of the scirrhus type. The swelling was about the size of a small orange. It was hard, adherent to the skin, and just under the nipple there was a distinct puckering, with induration. There were no deep adhesions and no glandular enlargement. This patient absolutely refused an operation and decided to undertake a course of X-ray treatment. She persisted in this regularly for one year. At the end of that time no swelling was apparent. The skin puckering had become less and the patient's health generally improved. I may say that in this and in all other cases I gave at the same time what I considered appropriate homœopathic remedies. This patient was seen whilst under my care by eight different medical gentlemen, who were good enough to examine her at my request, including Dr. Percy Wilde, Dr. Dudley Wright, Dr. Harvey King, of New York, Dr. Alexander Angus and others, who all concurred in the diagnosis. Up to this date I have heard both directly and indirectly of and from the patient, and there has been no return.—James Searson, M. D., in *The Journal of the British Hom. Society.*

IS IT BETTER to abort a case of pneumonia or let it run the usual course?

To cure an acute attack of apendicitis with medicine or perform a brilliant operation?

To discover tuberculosis in its early stages or allow the disease to fully develop?

To "burn" a venereal sore the first time you see it or make sure of your diagnosis and treat it accordingly, even though this diagnosis takes some days to accomplish?

To make a speedy diagnosis in injuries to the hip, or take more time and be sure of the lesion?

To ascribe continued uterine bleeding to the "change of life" or examine and determine the presence or absence of uterine growth?

To search for the cause of disease and the "indicated remedy" or "give something to ease the pain?"—*The Clinical Reporter*.

POPULAR MEDICAL FALLACIES. In a very suggestive paper recently contributed to the *American Magazine*, Dr. L. K. Hirshberg has set forth a number of medical fallacies which obtain among the laity, and some of which still dominate many professional minds. Our grandmothers believed in hot flaxseed poultices for boils, which certainly, in the light of modern bacteriology, were an ideal means for the propagation of fresh crops of Job's comforters. There are all sorts of "sovereign" remedies—liniments and oils wonderfully made and amazingly believed in, for the relief of aches and bruises. But hot water, olive oil, or Worcestershire sauce would do as well as any other preparation; it is the rubbing that heals, not the liniment. Porous plasters and other counter irritants are as a rule useless except for their mental effect. Nosebleeds are never to be stopped by pinching the patient's upper lip; this is an utterly illogical procedure. Besides, unless they are very profuse, they had best be left alone. This is sometimes nature's way of bleeding. Electric belts will not dissipate ghastly maladies. Such diseases as pneumonia, typhoid and tuberculosis used to be drugged unmercifully; now we make the patient clean and comfortable to begin with, and get a much greater percentage of cures by means of a policy of masterly inactivity. Obesity is not caused by overmuch drinking of water nor cured by its abstention. Sleeping after meals is not unhealthful. Dyes in stockings are not poisonous. Ingesting lime water will not cure warts. It is the anopheles and not foul air which causes malaria; "but for these pests the neighborhood of swamps would be as healthful as the highest plateau." Air heavy with gases and odors of decay usually seems harmful because of the stench; but such is not the case, as workers in dissecting rooms and tanneries may testify.

Thus would Dr. Hirshberg correct a few popular medical fallacies, some of them shared by "irresponsible physicians." Here we think Dr. Hirshberg, though his paper is generally very wise, is a little hard on his colleagues. We feel ourselves to be not altogether free from responsibility; yet we cannot fully agree that "mustard footbaths, hot lemonade, hot scotch, whiskey, quinine and powders are all alike hopeless for colds." We persist in being old-fashioned enough to put a patient with a heavy chill to bed, give him a hot drink, Tully's or Dover's powder, and a purge; we do this in the confident expectation borne of experience that the next morning will find him a little weak, but otherwise normal. And we feel, moreover, that in such a case we have averted some such serious disease as pneumonia. As has been noted counter irritants are chiefly of psychic value; but we hope that Dr. Hirshberg is not so unwise as to underrate the value of psychism in therapeutics. Swamps, moreover, are swamps, and they can never be as healthful as high ground, if for no other reason than that animal refuse and excretion must reach low land as inevitably as there is a law of specific gravity. Nor is air laden with gases and odors

really harmless; has Dr. Hirshberg forgotten his dissecting room fever, or is he one of those very rare birds among medical students who did not suffer that way?—*The Medical Times*.

A PROVING OF VARIOLINUM. Maurice Worcester Turner, M. D., formerly Associate Professor of Theory and Practice, Boston University. During the epidemic of small-pox in Boston, in the autumn and winter of 1901, Mrs. ——— and her daughter desired to be protected, but not by means of vaccination.

Prover I. Mrs. ——— was given variolinum, 1000 Fincke, two doses dry, one November 22d at night and the other in the morning of November 23d, 1901. On November 24th a vesicle appeared on the left side of her neck, the top being rubbed off, it promptly became sore and itched severely. It gradually enlarged until the areola, which was sharply defined, very red and angry, was at least seven-eighths of an inch in diameter; standing up from this inflamed base were light yellow ray-like scales in general thickness and color like psoriasis. These rays were discrete and arranged about the clear red centre, which was perhaps three-sixteenths of an inch across, radiating from thence toward the periphery like the spokes of a wheel. The spot gradually improved but did not disappear for over two weeks and it itched a great deal. During this time other spots appeared, one over the left scapula, one on each arm, at about the insertion of the deltoid, and, at the end of the fortnight, another on the left arm near the first one there; also a small one near that on the neck. All the spots were of the same character though less marked than the first which appeared. There were no systemic symptoms.

Prover II. Miss ——— also received variolinum 1000 Fincke, two doses, dry, one November 22d at night and the other in the morning of November 23d, 1901.

On November 24th spots appeared on the right arm, one above and two below the elbow, all on the flexor surface to the ulnar side, in character like those on Prover I. Later, about the fourteenth day, another spot came on the left arm above the elbow, also on the flexor surface. All the spots itched severely, as did those on the first prover. No systemic symptoms with the second prover.

While both had been vaccinated years before, neither prover ever had any eruption of a similar character except that Miss ——— when she had varicella had one umbilicated pustule otherwise the attack of chicken-pox, though accompanied by a severe cough, was not extraordinary.—*New England Medical Gazette*.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

CLINICAL NOTES.—Dr. Comet, of Barcelona, Spain, has reported in the *Revista de Medicina Pura*, a few cases of arterio-sclerosis in the aged, with nephritic, cardiac and cephalic manifestations simply due to the general process of mineralization of the arteries from senility, in which baryta carbonica was the leading remedy. "In this senile change the arteries lose their elasticity, leading to stagnation and in consequence to visceral processes, that do not only end in degeneration, but determine at once functional disturbances of great importance.

"The first case reported was of a lady, 84 years old, suffering from vertigo, livid face, nausea, tingling sensation in the extremities, dyspnoea, frequent nose bleeding, and an occasional facial paralysis, not a frigore, but due to the cephalic localization. In this case baryta carb 6, every three hours was the conquering remedy, sometimes alternated with secale 6, or millefolium 1, according to symptoms. During the periods of relative comfort, with the object of relieving the nervous exhaustion or eliminate the mucous exudation of the bronchial tubes, phosphoric acid and ipecacuanha were given. I could mention other intercurrent remedies, but as my principal object is to uphold Dr. Cartier's recent views on the subject, I omit them.

"The other two cases refer, first, to a patient 67 years of age, with coronary lesion, markedly revealed by lack of cardiac impulse, intense dyspnoea, abnormal slowness of the pulse, fainting spells, without perceiving any valvular murmur indicative of stenosis or insufficiency. Little was obtained by cratægus, caffein, arsenic or carbo veg., but in the moment baryta carb. 6 was administered in combination with other remedies, the results were surprising. The other case was that of a woman 75 years old, with intermittent albuminuria from prolonged standing, and as my attention was directed not only to a very tense and strong radial pulsation, but to the senile disk, which was also very marked, and suspected arterio-sclerosis, as the chief cause, I prescribed, besides fushina 6, which she was taking, baryta carb. 6, with immediate good results. This medication was only discontinued a few times, during three months, to give arnica 6 and natrum mur., which were indicated.—*Revista de Medicina Pura*.

E. FORNIAS, M. D.

THERAPEUTIC PROPERTIES OF ELECTRICAL COLLOIDAL METALS IN SMALL DOSES.—According to Iscovesco, colloidal preparations should be distinguished by the method employed in obtaining them. There are two varieties: Electrical and chemical colloids. This distinction is very important, as the electric colloids are in general more interesting to the physician. They, in fact, allow the study in the normal or pathological organism of an unique metal in an absolute state of purity. If we resume all

we know, at the present time, about this subject, we can well say that in these new substances we have precious therapeutic agents, especially as bactericides, absolutely deprived of toxicity, and consequently indicated in all classes of medical and surgical infection; not excluding, however, the possibility of their application to modify, in some way or other, those fermentative processes which normally take place in the organism; a question not decided yet. But at the present time we can subscribe to the following conclusions:

1. The electric colloidal metals, in small doses, give the best results in all infectious diseases.
2. They can be employed, either in intravenous injections, especially in severe cases, or in intramuscular injections, when the dose should be larger.
3. These substances should always be rigorously dosed; isotonic, stable. A non-stable product is a product without action, for it is instantaneously precipitated by liquor sanguinis. An injection not permanent in combination is equivalent to an injection of distilled water. The injection should be, besides, sterilized and isotonic.

In the majority cases the injection is followed by a febrile reaction, but frequently we observe therapeutic results without this reaction. If the initial dose, which for the adult, should be of ten cubic centimeter, is not followed by any reaction or gives no therapeutic result, we have then an indication for an increase of the dose in the following days. I have thus been able to inject in a single day forty cubic centimeters of electric silver. With children one must be more prudent and commence with much smaller doses, especially with intravenous injections.

5. The intra-muscular injection is absolutely painless and never produces local harm.

6. The initial minimum dose, for an adult, is five cubic centimeters.—*Presse Medicale*.

E. FORNIAS, M. D.

THE SCIENTIFIC AND HISTORICAL EVOLUTION OF HOMOEOPATHY. By Dr. Sieffert, of Paris. In the exposition of the scientific evolution the author appeals to the labors of Pflueger, Rudolf Arndt, Hugo Schulz, Claude Bernard, Ostwald and Jousset. From these labors he deduces:

- (1). The necessity of knowing, by the study of materia medica, the action of drugs upon the healthy human organism, in order to be able to make a judicious application of them at the bed-side.

- (2). The opposition of medicinal effects according to doses.

- (3). The efficacy of infinitesimal doses. Disease is a functional deviation requiring for a return to the normal, an excitation exerted on the organism. The excitant is the therapeutic agent acting thus upon the healthy human being (qualitative excitation). The diseased organism being more easily excitable than the healthy, it will be sufficient to employ the necessary quantity, corresponding to the degree of excitation one wishes to attain. This dose will always be inferior to the one required by the excitation of a healthy organism (quantitative excitation).

Finally the author states that in our method, similitude is the fundamental principle, the dose a manner of application.—*Revue homoeopathique Francaise*.

E. FORNIAS, M. D.

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RECENT AIDS IN THE DIAGNOSIS OF TUBERCULOSIS.

BY

GEORGE F. LAIDLAW, M. D., NEW YORK.

(Read before the Homœopathic Medical Society of the State of New York, September 25th, 1907.)

THE word, tuberculosis, was much used by the ancients but for them it meant anything from a cancer to an abscess and had no exact significance. With the revival of anatomical study by dissection in the seventeenth and eighteenth centuries, tuberculosis was gradually identified as a distinct disease susceptible of diagnosis and associated with the wasting disease that had long been known as phthisis or consumption.

The diagnosis of tuberculosis began seriously with the great revival of clinical medicine in the early part of the nineteenth century and to this period of acute clinical observation we can assign the discovery of many diagnostic signs that we use to-day. The rise of the art of percussion and auscultation at this time gave great impetus to the physical exploration of the chest, and thus it was that tuberculosis of the lungs and pleura were the first forms of the disease to be brought under diagnostic rule. The invention of the ophthalmoscope soon led, in 1858, to the discovery of miliary tubercles in the choroid coat of the eye, still a valuable diagnostic sign of miliary tuberculosis though in these bacteriological days it is usually over-

looked or forgotten. The introduction of the clinical thermometer, about 1850, revealed the characteristic tubercular temperature that remains to-day one of the most reliable clinical signs of tuberculosis.

About 1850, the microscope came into use and the diagnostic interest of tuberculosis shifted from the clinic-room to the microscopical laboratory. The microscope soon showed the tubercular nature of the so-called scrofulous inflammation of bones and joints, of scrofulous lymph-glands and lupus ulcer, of the laryngeal ulcers of phthisis, of scrofulous disease of the kidneys and bladder, of the testicle and cord, of the uterus and tubes and of chronic inflammation of the pleura and pericardium. The demonstration of the pathological unity of these diseases scattered all over the body was the triumph of the histological period. An important contribution of microscopy to the diagnosis of tubercular phthisis was the demonstration in the sputum of elastic fibers of the lungs. In the days before the tubercle bacillus, this observation was of inestimable value in doubtful cases.

A new era, the era of bacteriology was inaugurated in 1882 when Koch demonstrated the microbic cause of all varieties of tuberculosis. This bacteriological era has contributed much to the diagnosis of the disease. First stands the tubercle bacillus, of absolute diagnostic value wherever found. The tubercle bacillus gives accuracy to the diagnosis of urinary tuberculosis formerly undreamed. Bacteriology combined with Quincke's lumbar puncture now makes a positive diagnosis of tubercular meningitis, differentiating it from the suppurative form and sporadic cases of the cerebro-spinal type. Bacteriology has also supplied the means of distinguishing the tubercle bacillus from other acid-fast bacilli. In circumstances where by reason of its sparseness, the tubercle bacillus cannot be found in the ordinary smear, that is, in cases of early phthisis or peritoneal or pleural exudate or curettings or caseous lymph-glands or urinary tuberculosis, bacteriology has supplied the supplementary methods of culture and inoculation of animals. Culture on the original tuberculosis media being slow and technically difficult, media were devised by von Hesse and Jochmann for the rapid cultivation of the bacillus for diagnostic purposes and these media have proved extremely useful. However, the simplest and most reliable test of the tubercular nature of a given fluid is the intra-peritoneal injection of a

guinea pig. Guinea pigs are so easily kept and fed and they are such ideal test animals for tuberculosis that one wonders that they are not more frequently employed.

Great as were the contributions of bacteriology to the diagnosis of tuberculosis, it left several gaps unfilled. There were the cases of early phthisis before expectoration or, if expectoration, before the breaking down of tubercles and the liberation of tubercle bacilli; that is, bacteriology gave no help in the diagnosis of the disease in the stage in which it was most important for the patient to be placed under treatment. There was also miliary tuberculosis in which the cultivation of the bacilli from the blood presents many technical difficulties and a large percentage of failures. There was peritoneal tuberculosis and lymphatic tuberculosis to be distinguished from lympho-sarcoma and Hodgkin's disease and tuberculosis of the prostate and testicle. The microscope had carried tubercle diagnosis to its morphological limit and there was no further progress until the chemist appeared and developed the chemical side of bacteriology.

The fifth or chemical period in tuberculosis began in 1890, when Koch caused fibrosis of tubercles in a guinea pig by injecting the chemical products or toxins of the bacilli and in 1895 when von Behring discovered in the blood a naturally produced chemical antidote to the bacterial toxins of tetanus and diphtheria. Concerned at first purely with therapeutics, the chemical products of tubercle bacilli soon entered the field of diagnosis by virtue of their power to cause a specific reaction when brought in contact with tubercular tissue. This reaction consists in an access of pain, heat, redness and swelling and exudation, in fact all the classic signs of inflammation and is shown only by tubercular tissue. It is best seen and was first observed in lupus ulcer. It takes place in all tubercular tissue and is especially well marked in pulmonary tuberculosis, where the inflammatory reaction can be detected by the physical signs. Coincident with the local reaction are the constitutional symptoms, chief of which is a rise of temperature with or without chill, aching of the bones, nausea, vomiting and prostration. In homœopathic language, there is a marked aggravation of the symptoms pointing to the homœopathicity of the drug. I might remark, in passing, that this homœopathicity is only apparent; for, tuberculin never produces these symptoms in the healthy. It is a matter of sombre satisfaction

to the homœopathic logician that this drug that does not produce the symptoms in the healthy does not cure the disease. As far as our knowledge extends, there seems to be an exquisite homœopathicity about these bacteria and their toxins and they are not interchangeable. Small doses of tuberculin will protect against large doses of tuberculin but not against the bacilli. Dead bacilli will protect against dead bacilli but not against living ones. The best protection and cure for infection by living tubercle bacilli is inoculation with a feeble but living tubercle bacillus and it is the hesitation that we all feel against injecting living tubercle bacilli into human patients that delays the development of this most promising isopathic treatment of tuberculosis. This by way of parenthesis. We will return to the diagnostic value of tuberculin. The characteristic reaction occurs with all the preparations of tubercle bacillus which have been introduced, whether it be the old tuberculin or T. R. or the bacillus emulsion or the sera of Margliano or Marmorek, but the old Koch tuberculin gives the most constant results. Nearly all cases of tuberculosis will react if the dose is large enough. Exceptions are advanced cases, of which the explanation is that they have already reacted to the tuberculin in their own bodies so often that their capacity for reaction is exhausted. It fails also in encapsulated, that is, healed tuberculosis. On account of the liability to too strong reaction, hemorrhage, fever and prolonged aggravation, the initial dose should be small, two-tenths of a milligram of old tuberculin. Lowenstein and other observers have pointed out that the first dose of tuberculin sensitizes the tubercular tissue so that for some time it will react to smaller doses than before. This phenomenon was commented on editorially in a recent number of the *Medical Record* in relation to diphtheria antitoxin, pointing out the danger of administering a large second dose soon after the first. In suspected cases that do not react to the first injection, a practical rule is to repeat small doses several times rather than to increase the dose too rapidly. A dose of two-tenths of a milligram every third day for four doses will give positive results.

As already indicated, the reaction is both local and constitutional. In miliary tuberculosis and meningitis and some cases of glandular tuberculosis, the constitutional signs of chill, fever, nausea and prostration must be relied upon. In lupus, the local reaction is the best guide. In pulmonary phthisis, as

Dr. von Ruck has long insisted, the local reaction in the lung is readily recognized, requires less dosage and is therefore a safer guide than the constitutional reaction. It is determined by increase in the physical signs of the affected area, extension of percussion dullness and, especially, crepitant and subcrepitant rales, increased cough and expectoration and perhaps hemorrhage. The signs of reaction appear in from six to twelve hours and continue for three or four days.

If doses of two-tenths to one milligram are not exceeded, there is practically no danger. Accidents which have occurred with larger doses are hemorrhage, increased fever with prolonged ill-health, the patients never regaining their former condition. These accidents are due to too large and too frequent doses. With his respect for the aggravation and his confidence in its curative power if allowed sufficient time to expend itself, the Homœopath is less likely to make this mistake than the more crude non-homœopath with his daily large doses.

The Opsonic Index.—The work of Professor A. E. Wright, of London, has been widely discussed during the past three years. The so-called opsonic index has been applied to the diagnosis of tuberculosis in three ways. First, the blood serum of the patient with localized tuberculosis has much less opsonic power than healthy blood. Many observations confirm this fact, but the reports are still contradictory and as yet the question cannot be said to be beyond dispute. The question is complicated by the fact that every little constitutional disturbance will raise the opsonic index to the normal or above it, and this is especially true of tubercular phthisis.

The second application of the opsonic index to diagnosis is the behavior of the blood serum of a tubercular patient after an injection of tuberculin or bacillus emulsion. For twenty-four or forty-eight hours, there is a marked fall in the opsonic power followed by a rise. This does not occur in non-tubercular patients.

The third application of the opsonic index is best adapted to surgical tuberculosis and tubercular peritonitis. In a strictly localized tuberculosis as that of bones, joints, lymphatic glands or peritoneum, the tissue juice of the tubercular area has much less opsonic power than the blood serum of the patient. In other diseases, the tissue juice and the blood-serum have equal opsonic power. This enables us to differentiate tubercular peri-

tonitis from cancer or the ascites of other causation and should be of value in recognizing tubercular otitis.

The Blood.—For years, microscopists have sought some characteristic sign in the blood by which tubercular infection and cancer could be recognized. Except the tuberculin reaction, which is chemical, no reliable indications have been found. The occasional papers in medical journals of enthusiastic observers claiming the discovery with the microscope of a diagnostic sign of tuberculosis in the blood have been premature and such power is now only claimed by charlatans and the self-deceived.

Arneth's blood pictures, which consist in the arranging of the neutrophile leucocytes according to the number of their nuclei in groups of one, two, three and four nuclei are undoubtedly important in prognosis but have no diagnostic value, since the same features are seen in cancer and many other diseases.

The recent aids to the diagnosis of tuberculosis that remain to be considered are the agglutination test or serum diagnosis, cyto-diagnosis, d'Espine's sign of enlarged bronchial glands, the long-neglected Krönig method and the X-ray.

The agglutination test is similar to the well-known Widal reaction of the blood serum of typhoid fever and is adapted to all forms of tuberculosis. As a diagnostic sign, it is unreliable. Some healthy blood sera agglutinate tubercle bacilli strongly and tubercular sera present all degrees from strong to feeble agglutination.

Cyto-diagnosis is applied to exudates, as in suspected tubercular pleurisy, peritonitis and cerebro-spinal meningitis. The indefatigable Widal observed that tubercular exudates contained a preponderance of mononuclear leucocytes, inflammatory exudates a preponderance of polynuclear leucocytes and mechanical transudates and those of malignant disease a preponderance of endothelial cells. Widal attempted to elevate this observation to the dignity of a diagnostic sign, but more extensive observation has shown that mononuclear and polynuclear leucocytes preponderate in proportion to the age of the exudate rather than the specific cause. All fresh exudates have an excess of polynuclear cells. This condition gradually changes to an excess of lymphocytes. Tubercular exudates being usually of a chronic character therefore usually present a relative

excess of lymphocytes, but this is no specific sign of tuberculosis.

D'Espine's sign of enlargement of the mediastinal and peribronchial lymph-glands is described in his article in *Tuberculosis* for May, 1907. If you auscultate the voice with a stethoscope of small aperture, as the usual binaural, over the lower cervical vertebræ, having the patient, say "99", you will hear loud tracheal vocal resonance, as shown by Laennec many years ago. This loud vocal resonance ceases abruptly at the level of the seventh cervical spinous process where the lung commences. The roots of the lungs with their clusters of lymph-glands lie directly in front of the upper dorsal vertebræ. Any enlargement of these glands transmits the bronchial vocal resonance to the adjoining vertebræ and can be recognized with the stethoscope by extension downward of the increased vocal resonance to the spinous processes of the first, second, third and fourth dorsal vertebræ. It is a sign of special importance in children, because pulmonary tuberculosis in children is probably first expressed in the lymph-glands at the roots of the lungs and often runs its entire course there. I know nothing of this sign more than I have read in the article referred to but, from my experience with the Krönig percussion method, know the importance of studying the upper dorsal vertebræ in early tuberculosis. The sign is so plausible that I have felt warranted in bringing it to the attention of others who have the interest and opportunity to verify it as I hope to do also. D'Espine finds it constantly present in tuberculous meningitis and surgical tuberculosis of children.

Of the value of the Krönig method of percussing the apices in the diagnosis of early phthisis, I have often spoken and, after five years' experience, can only endorse it more strongly. With a light percussion-stroke, the width of each apex of the lung normally is $2\frac{1}{2}$ to 4 inches and equal on both sides. Widths under $2\frac{1}{2}$ inches and especially unequal widths are extremely suspicious. If the inequality is well-marked, it is a certain sign of retraction of one apex and this is practically always tubercular.

The X-ray is applicable to the diagnosis only of phthisis and tuberculosis of the bronchial or mediastinal glands. While I think that in the majority of cases early phthisis can be diagnosed as well or better by percussion of the apices, especially by the Krönig method, I must admit that, in doubtful cases,

I am very glad to have my opinion reinforced by a radiograph. Fluoroscopic diagnosis in the office is a matter of interesting confirmation of physical signs, but requires a practised eye to interpret what is seen. In everyday work, it can never and should never take the place of accurate percussion. To yield satisfactory results, radiographs, too, must be both taken and interpreted by an expert.

The restricted motion of the diaphragm on the affected side, to my mind, is also only a confirmatory sign and of less value than a radiograph or delicate percussion. I have studied the motion of the diaphragm with the fluoroscope many times but have been able to detect this restricted motion only in cases that were easily diagnosed by percussion.

In summing up the various methods of diagnosing tuberculosis, I would classify them as follows:

I reject the spirometer, cyto-diagnosis, the serum agglutination and all diagnosis by examination of the blood.

I give first place to the tubercle bacillus supplemented by culture on von Hesse's medium and inoculation of the guinea-pig; but, in phthisis, expect to make the diagnosis by accurate auscultation and percussion, the Krönig method or the tuberculin test before the bacillus appears in the sputum. X-ray diagnosis is of secondary importance. On the other hand, the presence of miliary tubercles in the choroid of the eye is of first importance in the diagnosis of miliary tuberculosis.

The opsonic tests and d'Espine's auscultation of the vertebræ are still insufficiently verified.

LISARGINA OR COLLOIDAL SILVER has been introduced in Germany as a novel patent remedy, but in the last few years many satisfactory experiments have been made with this substance. Dr. Comet Fargas, of Barcelona, claims to have been the first to propose to the Academy the employment of the attenuated salts of silver, as internal and external disinfecting agents, on account of the special catalytic action they possess on the microbes, and the fact of their toxic effects remaining passive. Later Dr. Robin made a similar proposition to the Academy of Medicine of Paris, acknowledging the virtue of the infinitesimal doses of these salts, which he called metallic ferments.

Now, we have again an identical application by the Germans, who are monopolizing the discovery of collargol, an allotropic form of silver, prepared by associating silver with protalbinic and lysalbinic acids, resulting from the unfolding of albumen. As a result of this association we have brilliant blue scales, readily soluble, which although decomposed by the direct rays of the sun, can be kept in the open air and under a diffuse light.

THE CLINICAL SIGNIFICANCE OF IRREGULAR PULSE.

BY

G. MORRIS GOLDEN, M. D., PHILADELPHIA, PA.

(Read before the Homœopathic Medical Society of Pennsylvania, Pittsburg, Pa., Sept., 1907.)

IN studying the pulse and its irregularities, one cannot attempt to go into a minute description of its many forms and phases, but to group them under one head, terming it irregular pulse, or arrhythmia as may be preferred.

One fact is extremely easy, that is: How readily, and with what ease an irregular pulse is recognized, but there is probably no other abnormality, whose clinical significance is so overshadowed, or harder to interpret at times than that of irregular pulse, when it behooves us to give a plausible or intelligent cause and effect of same.

There are two factors to be considered in studying irregularities; first that of rhythm; secondly, that of force, but as these two conditions are closely related, and as the majority of irregularities resolve themselves into variation of duration, the study of the rhythm is most important.

Mackenzie, in his work "The Study of the Pulse," has classified them into two types for simplicity sake, designating them as the "Youthful Type," and the "Adult Type." Suffice to say of their characteristics, that the "Youthful Type" is designated by irregularities which occur through variation in the duration of the diastolic period of the cardiac cycle, while in the "Adult Type" of irregularity there is a variation of the systolic period as well as in the diastolic period of the cardiac cycle.

The youthful type is seen most frequently after fevers, with slowing of the pulse, and is often noticed in younger years without any apparent cause, the probabilities being that every child has a slightly irregular pulse at some period of its life before it reaches its normal physiological equilibrium of 72 beats per minute. Of the Adult Type which, as I have mentioned before, shows variation in the systolic, as well as diastolic period, is due to the early occurrence of a ventricular systole, or a dropped beat, giving us the shortened systole, and a prolonged diastolic period; and the vast majority of pulse irregularities in adults correspond to these two conditions.

When an irregular pulse is discovered our thoughts are at once concerned as to what it means, and what its significance, as regards the patient's good health. Infrequently we are met by patients who have been wrought up into a nervous frenzy, and having all the diseases of the heart known to the medical science, by being told they had an irregular pulse and the awful calamities that may follow. Thus Traube, who was the first to call attention to the *pulsus bigeminus*, looked upon it as of fatal significance. Tripiier thought when not due to digitalis, or associated with valvular disease, was associated with epilepsy, while Richardson claimed that the missed beat was the sign of impending dissolution, from these conclusions, it seems that the old mistake which is often made, of generalizing or drawing conclusions from insufficient data.

The question arises, Can irregular pulse occur in an apparently healthy individual? We may say for all clinical purposes that it is possible. You have no doubt seen time and again subjects exhibit irregular pulse without any apparent signs of ill health, and at the same time pass through a serious illness, or do hard, laborious work without any inconvenience to the person. There surely cannot be any marked or material changes in such a heart, for at least it is quite capable of performing its duty.

The relation of irregularities to the various heart diseases is a large subject, and one which I have not time to discuss in a general paper of this kind, but I wish to state briefly, that it may be one of the symptoms of any form of heart disease. Its presence and significance is well known in the mitral lesion, and may occur quite early. Of its relation to the aortic lesions, it is more serious, for it is here the result of myocardial, and atheromatous changes, and those subsequent to them. Of myocardial changes it is probably more significant, and has been looked upon as pathognomonic of such changes. As an accompaniment of failing heart it is almost constantly found, whatever the cause of the failure may be, whether myocardial, valvular disease, atheromatous changes, or Bright's disease. But in these conditions irregular pulse is not the salient feature, it depends largely upon associated conditions, nutrition, especially of the heart muscle, and what is demanded of it.

Irregularities are frequently found in connection with the various neuroses, and from the effect of various toxic substances upon the heart.

You have all no doubt been struck with the similarity of the pulse in diseased and healthy hearts. Frequently one meets a heart which is dilated, probably one or more murmurs, irregular pulse, and to all appearances no clinical symptoms, while on the other hand a patient may be encountered with all the clinical features of a cardiac disease, and upon examination, hardly find enough demonstrable to warrant such a condition. Why is this? It can be answered as follows: A certain amount of arterial pressure must be maintained in order to have the proper functions of the organs maintained, in the one case this condition is fairly accomplished, without the heart using its full capacity of muscular force or reserve strength, while in the latter case this whole reserve has been called into action, but is not sufficient to maintain the normal equilibrium. This is what is termed by Mackenzie as the "Cardiac Field of Response," and is the work the heart is capable of doing when called upon to a certain point. This field gradually expands until middle life, after which it gradually diminishes.

In some individuals a greater predisposition to irregularities is shown than in others; undue excitement, certain drugs, tea, coffee, tobacco and at times digitalis, may cause such in susceptible individuals.

Irregularity of the pulse is quite common after middle life, and may only be detected at intervals, as evidenced by repeated examinations, in which it is absent, or slight excitement may produce it. It can probably be looked upon as evidence of some fibrotic or myocardial change, for in some such subjects sudden death has occurred.

The relation to febrile conditions is worthy of note. The tendency of fever is to quicken the pulse, and when any condition accelerates an irregular pulse, the irregularity usually disappears, this being a favorable sign. This fact holds true when an irregular heart is stimulated from any cause, whether fever, excitement, or muscular exertion. On the other hand, if this increase of rate is not followed by the disappearance of the irregularity we must look for trouble ahead.

The stage of the condition in which it occurs, is important; the earlier, the more grave, and this is well marked in croupous pneumonia, for those cases developing an irregular pulse before the crisis are invariably fatal. Mackenzie states he has

not found an exception to this rule. Its significance is probably not so marked in the catarrhal type, and the aged. I call to mind two cases of such type in the aged; one 81 years of age, the other 86 years; in which irregular pulse occurred in the latter course of the disease, both going on to recovery. The probability is that these patients had a pulse of irregular character before the illness, which disappeared on the presence of the stimulating effect of the fever. Irregularities are frequently found on the subsidence of the infectious fevers, such as typhoid, pneumonia, etc., and are usually indicative of malnutrition, and exhaustion, in which the heart muscle suffers and calls for rest and feeding.

After reviewing as briefly as possible the more important clinical relations of irregular pulse, what significance can we place upon it, or at what conclusions can we arrive?

It must not be supposed that little or no significance should be placed upon an irregular pulse; but we should not jump at conclusions, and say this patient has a grave cardiac disease, or condition complicating their disease, and prepare them for their doom.

It is frequently present in persons dangerously ill, no matter what the cause, it is only one symptom denoting a cardiac weakness, and not the whole picture, therefore it devolves upon us to make a thorough examination of our condition at hand before we make any definite conclusions.

It may be the first sign of an impending trouble, when associated with other diseased conditions, but when an irregularity is the only symptom present, with other conditions being satisfactory, and a heart not showing any material change, it is then that the terrible consequences of irregular pulse should not be harbored. The outlook depends largely upon the associated conditions, for instance a person with rheumatic fever may have an occasional irregular pulse, with slowness, its terrors are not great, but picture, on the other hand, a pneumonic condition, with high temperature, irregular pulse, and marked lung changes, then it is that our outlook has a decided different hue.

As associated with the heart conditions, per se, it is unfair to patient and ourselves to draw conclusions without reference to other cardiac requisites; by these I mean: 1. The presence of any valvular lesion. 2. The condition of the heart muscle, not as to strength alone, but as to its nutrition, as evidenced

by sclerotic changes at the aortic opening, and those of the coronaries, for if such is the case, the nutrition to the cardiac muscle is impaired, and myocardial change will sooner or later evidence itself. 3. The general nutrition of our patient, and the presence of anæmia, which is that of the secondary type. These conditions considered in total is the only manner in which we can arrive at a definite conclusion.

In closing allow me to summarize as follows: 1. Do not place too much significance upon an irregular pulse as an only symptom, but interpret the associated conditions, weigh them thoroughly, and the value of each before making a definite conclusion.

2. Although the symptom may be of no special importance, still it may frequently be the result of serious cardiac change.

3. That an irregularity which is not persistent is less important than a continued one.

4. The disappearance of an irregularity on exertion is favorable, while one which increases is unfavorable, and usually indicative of myocardial changes.

5. An irregularity showing early in the course of the febrile diseases should warrant a guarded prognosis.

6. And lastly, do not depend upon an irregular pulse, as the guide to the true cardiac condition.

HYSTERIA IN INFANCY AND CHILDHOOD.

BY

WM. W. VAN BAUN, M. D., PHILADELPHIA.

(Read before the Homœopathic Medical Society of the State of Pennsylvania, Pittsburgh, Pa., September, 1907.)

THERE is a prevailing impression that hysteria is seldom, if ever, met with in early youth, from the second or third year to the twelfth.

Whatever past experience may have been with the descendants of our early sturdy American stock, there is now a mad rush of "neurotism" or "degeneracy" overwhelming many; keeping pace and marking time with the abnormal and unhealthy standard of life set up with the sudden acquisition of wealth, affluence and leisure.

It is the standard of stress and excess; of lost opportunity for health, happiness and usefulness; the era of human waste and exhaustion. The newness, the very suddenness of the situation, affords no time for intelligent perception and proper evolution and adjustment. The newly rich lack the ability to render unto Cæsar the things that are Cæsar's, and rationally pluck and enjoy the blessings and privileges that rightfully attend the possession of wealth. Sooner or later they reap the husks of degeneracy for their own, even unto the second and third generation.

Would that it ended here with this class. The standard set, instantly the race springs to keep the pace and a response thrills down through every strata of society, reaching unto the lowest, and the carnival of excess has an ever-increasing horde of devotees, with the inevitable result of mental, moral and physical degeneration.

To-day finds a steadily increasing array of hysteria in those of tender years. Of course, if we look for the well known stigmata of adult life, disappointment will mark the course of our research, but bearing in mind the modifying tendency of child life on the usual clinical picture, our reward will be abundant.

Physicians, teachers and parents are beginning to be truly interested in irritable, unstable, freakish, precocious, eccentric, neurotic children, and what observing and doting parents formerly flattered themselves was unusual, splendid and special attainment of their offspring, is now rightly recognized to be a form of minor mental abnormality, which, unless held in check and properly controlled, will lead to disastrous consequences.

Recognition by the intelligent portion of the community leads naturally to control, and soon the same enthusiastic and exhaustive study and research will be given to this class of cases as is now devoted to understanding and relieving the backward and degenerative types of childhood. It is essential now for physicians, educators and parents to clearly recognize that the neurotic offspring of sensualists, nervous, insane, alcoholic, tubercular or syphilitic parents, in either affluent, moderate or poverty-stricken circumstances, may be and often is the victim of hysteria in some of its many aspects. That hysterical phenomena is but a step beyond the "capricious," the "eccentric" and similar types. That it is not a rare con-

dition, not an unusual one, but rather a constantly increasing factor in the nervous exhaustion rending all phases of life, especially in over-crowded, vicious communities.

FREQUENCY.

The best modern text-book authorities dismiss the question of hysteria by stating: "It is not a true disorder of childhood." Others who have more thoroughly reviewed the question from the child's standpoint are constantly raising their estimate of its frequency.

Oppenheim states he has seen hysteria in cases ranging from 4 to 6 years and repeatedly in children from 8 to 10 years, and has noted hysterical manifestations appearing as early as the second and third year.

All admit that puberty and the years of adolescence following furnish the largest number of cases and that it is common before 10 years. It is the few keen observers who are now recognizing and admitting that children may develop it in very marked form even as early as 2 or 3 years. These observations destroy the old confidence that there was no such thing as an infantile type of hysteria similar to that appearing in youth and adult life.

In 1859 Briquet insisted that juvenile hysteria was a common affection, claiming that one-fifth of all cases of hysteria are developed before the twelfth year.

Bruns, in 1905, reviewing the situation with the accumulated clinical experience of nearly half a century states that Briquet's ratio for children is not excessive but less than the actual truth, and that the ratio of juvenile to adult cases of hysteria is at least 1 to 5. That the sex ratio between children is 2 to 1 in favor of the female, and as puberty approaches the female type increases while the male type decreases: that the child of the ignorant, poverty-stricken family is as susceptible to hysteria as the spoilt pampered child of the vicious and idle rich.

ETIOLOGY.

As an etiological factor heredity properly receives willing assent as a potential factor, while environment, the truly dominant factor, is scarcely ever referred to excepting indirectly under such headings as anæmia or chlorosis. Institutional

conditions and unsanitary or unhygienic surroundings of the home of either the rich or the poor, in fact anything leading to an exalted nervous irritability and depreciation of the general health may lead to hysteria. Other admitted causes are masturbation or phimosis, improper training and discipline, injury, fright, grief, jealousy, and imitation.

The hysterical symptoms may be engrafted upon some organic or constitutional disease like tuberculosis, syphilis, or upon some nutritional disorder like marasmus or rickets, or upon a neuralgic or arthritic base. A joint injury with this combination in an impressionable child may present hysterical tenderness, immobility and contracture long after the real exciting condition has passed away.

SYMPTOMS.

The clinical symptoms which may be present run the whole gamut of simulation, suggesting organic disease of the brain, spinal cord, heart, lungs, digestive system, bones or joints. In adult patients it is the rule to find the hysterical stigmata and accidents in great numbers. In marked contrast to this the juvenile case presents usually only one distinctive objective symptom. For instance, a localized paralysis. Such undue prominence of a single symptom is strongly suggestive of its functional origin.

Gillette has reported a case of a child eighteen months old who exhibited the symptoms of hysterical palsy in one arm. Cases of hysteria in young children while usually presenting only one or two physical findings, may also show combinations of psychical or sensory symptoms, or of motor and convulsive symptoms. Often there is a loss of co-ordination for walking or standing. The general condition, like in all hysterical patients, is usually below normal. They are illy nourished and anæmic, they sleep badly and their appetite, digestion and assimilation are faulty. Exceptionally, to confute an established confidence, the general health may appear to be perfect.

DIAGNOSIS.

The diagnosis is often overlooked, because in the making, there has been a failure to consider hysteria as a possibility—when borne in mind, few cases escape recognition. A combination of vague symptoms not otherwise explained in the child

of a neurotic or hysterical family, easily determines the diagnosis, but when similar groups of symptoms are engrafted on or complicate organic or constitutional disease the decision becomes difficult. The paralysis of hysteria and of polio-myelitis may be similar and an atrophy exist in each case, but the Faradic contractibility of hysteria clears up the situation.

Monoplegias, paraplegias and hemiplegias occur in hysteria in the young but there is no facial involvement, the palsy is confined to a single limb. It usually comes suddenly, with flaccidity, normal tendon reflexes and atrophy in long standing cases. Watched closely these paralysees will vary daily astonishingly in extent and degree. If long standing, marked functional, painful contractures may supervene, relaxing only in deep sleep or narcosis.

In monoplegia of the lower extremity, with downward flexion of the foot, the scraping of the toes and sickle gait of organic hemiplegia is wanting. Anesthesia and sensory disturbances are not often found in very young cases of hysteria. If local hyperæsthesia is present, there is usually an acute tenderness of the spine on pressure, and the child is unduly sensitive to heat and cold. Many varieties of tonic and clonic spasm are met with from choreic movements like a facial habit spasm to epileptoid seizures—these latter will closely simulate a true epilepsy. The hysterical convulsion is a pure psychic explosion with consciousness always more or less retained, and no matter how violent the seizure there is no auræ, no biting of the tongue, no injuries, no involuntaries. A large number of recurrent choreas are hysterical, being fair imitations of an early genuine attack.

The temperament of hysteria is that of exaggeration. There is always a lack of proper proportion between cause and effect. Slight causes are followed by seemingly profound and grave consequences. All children are skilled imitators—the child of hysteria to the degree of perversion, but no perversion can will or simulate the true and unmistakable signs of organic disease such as lost reflexes, choked discs, facial paralysis, the involuntaries, etc. The prognosis of juvenile cases is better than in adults. The younger the child the more easily the mind is influenced and the quicker the cure. As in adults, the cure will come by and through the mind; and the more rapidly the mentality accepts and yields to suggestion, the more satisfactory and complete the cure.

Pronounced hereditary tendency is unfavorable—many of these cases offer stubborn resistance and relapse later in life.

TREATMENT.

The treatment of hysteria is like the hysterical temperament—one of exaggeration. The response lacks proper balance or proportion, cause and effect seem wanting. The results are splendidly successful or fail dismally, dragging indefinitely. The disease is a psychoneurosis, when the psychic element is controlled early by proper suggestion in an impressionable child old enough to comprehend, and before the hysterical habit becomes a fixed morbidity, the suddenness of the desired response is startling and gratifying. This opportunity is lost, unless there is an early positive diagnosis. Isolation and confidence are prime factors of success. Isolation being imperative where the surroundings are unsuitable and where complete and intelligent family co-operation is denied. Neurotic children call for physical, for muscular development, rather than mental. The nervous system needs to be held back or in abeyance. The child should lead a simple out-of-door life in the country, free from excitement, with simple diet, regular habits and plenty of sleep.

Their education is to be directed with good judgment and moderation along the line of least resistance, and they are to be shielded from nervous, nagging, hysterical members of their family. The moral treatment is of greater importance than the therapeutical, requiring firmness and kindness, but no sympathy. The eradication of a morbid fad or fancy in a 5 to 10 years' old child calls for untiring intelligent effort and the chief obstacle to success will be the family. Medicinal treatment re-enforces suggestion and improves the general physical condition, controls the neurasthenic tendency, and tones the nervous system.

The hysterical child needs help, it needs confidence, it needs control. Nothing helps so much as improved nutrition. Good nutrition means a strong body and a stable nervous system—the two essentials. Here it is that our proved and well-tried similar remedies show their value. Here aconite, assafoetida, hyoscyamus, ignatia, moschus, phosphorus, valerian and others verify our confidence and reliance by restoring the mental, moral and physical condition of the hysterical victim.

POPULAR ERRORS REGARDING NEPHROPTOSIS.

BY

SIDNEY F. WILCOX, M. D., NEW YORK CITY.

(Read before the New York State Homœopathic Medical Society, September 26th, 1907.)

OCCASIONALLY the medical profession, under the banner of conservatism and entrenched behind an accepted opinion, fights stubbornly in defense of an error which has nothing but persistent reiteration to recommend it. The erroneous opinion usually emanates from some popular writer, and, having been copied from one work to another, assumes a Gibraltan impregnability. The assertion may be a complete fallacy, or it may contain a small proportion of truth, but nevertheless, it is accepted for a while as a whole truth. Fortunately, the profession usually finds out its mistake and sets itself right in time. At present, however, it has not reached a full appreciation of some of the errors which are popularly believed to be truths. Nothing more clearly exemplifies this peculiar condition of the medical mind than its common attitude towards nephroptosis, and its reluctance to admit the extent to which this condition contributes to the fund of human misery.

The popular errors regarding nephroptosis, which I propose to consider, may not be pure errors. Like masses of mud held together by network of fibres; they contain a sufficient percentage of truth to give them plausibility. For that reason, I have designated them as 90 per cent. errors and will state them as follows:

The first popular error which I refer to is, that while nephroptosis *in some cases* may be productive of unpleasant symptoms, in the majority of cases gives little or no trouble.

The second popular error is that in cases where direct reflex symptoms are produced by movable kidney, they can easily be obviated by the use of various arrangements of corsets, bands, belts or trusses, or if these are not enough, the patient can be cured if she will take tonics and rest, improve the general health and grow fat.

The third popular error is that the fat will act as a natural pad and by its pressure hold the kidney in place.

The fourth popular error is that the improvement, after an operation for fixation of the kidney, is only transient.

The fifth popular error is that the greater proportion of cases occur in women who have borne children.

The reasons which have contributed to the promulgation and fostering of these errors are:

First, a lack of appreciation of the grave symptoms arising from movable kidney.

Second, consequent neglect to examine for this condition.

Third, lack of sufficient skill on the part of many examiners to find the movable kidney.

Fourth, seeing the results of badly performed operations, or failing to recognize the fact that some patients have been ill for so long a time that the *habit-illness* is almost irradicable, although they are physically better.

For many years I accepted some of the above errors for truths, but an unusually large experience with this condition has compelled me to reverse my position to a considerable extent, and also to condemn some of these assertions as the veriest bosh.

The assertion that movable kidney gives little or no trouble in the majority of cases is disproved by the very fact that the condition is discovered at all. A patient does not generally undergo a searching examination without a reason, and the reason is that she does not feel well, and it is quite as credible that the symptoms from which she seeks relief arise from the movable kidney, if one is present, as from some gynaecological condition, for which she undergoes treatment and even operation. In a considerable proportion of cases, movable kidney is accompanied by some uterine displacement and both conditions enter into the production of the symptoms. To say that the patient suffers from "nervous indigestion," the cure of which will relieve the kidney symptoms shows that the sayer is unacquainted with the fact that "indigestion" is largely a symptom, and not a disease in itself. The same may be said regarding the headaches, the backache, the weariness, the palpitation, the dysmenorrhœa, the bladder symptoms, the simulated attacks of appendicitis and the endless number of hysterical and nervous symptoms; because these symptoms are purely reflex and do not constitute in themselves distinct diseases. The wearing of any of the various forms of retentive apparatus is accompanied with the greatest amount of an-

noyance to the patient. In order to have any form of apparatus effective it must be worn tight and so arranged that its pressure is exerted upward and backward. This pressure must be applied principally below the lower margin of the ribs, and for this purpose pads of greater or less thickness are required to be worn underneath the band or corset. In some very thin women, the pads may be attached to a stiff spring, going around the body like a truss. Gallant advocated a corset so arranged that abdominal pressure was made by a certain adjustment of the steels while the pads were applied to the back. A great deal of ingenuity and thought have been expended on various arrangements of corsets. Bands of all sorts have been invented and tried, from a simple surcingle of non-elastic webbing to carefully adjusted bands of elastic fabric. Some of these are wide, some narrow, some are high in the back, some low on the hips; some are held down with perineal straps, and some with stocking supporters, but to be efficient, the pad must always be worn with it, and the pad is very objectionable to most women. It causes a great deal of discomfort by its presence and pressure and is a source of great annoyance, because it gives the appearance of the enlargement of the abdomen, to which most women decidedly object. The great tendency of the band to ride up on the hips necessitates either the use of the perineal straps or the attachment to the stockings. The perineal straps are objectionable, because they must be covered with rubber and they chafe and are very uncomfortable. The stocking supporters are less objectionable, but not generally as effective. One lady told me that she wore six pairs at a time. Another thing, a stocking supporter is only effective when a patient is standing. When the thigh is flexed, all the traction is lost. The notion that a collection of abdominal fat prevents the descent of the kidney is erroneous; in fact, I have had quite as much trouble with fat women who have movable kidneys as with thin ones. One lady who is well padded with fat suffers very frequently from attacks of frightful pain from twisting of the pedicle. The pain simulates that of gallstone colic, but never at any time has there been any corroborative symptoms, as finding the stones, jaundice or pain under the right shoulder blade to bear out the gall stone diagnosis. It must be borne in mind that the movable kidney slips freely up and down in a loose sheath back of the peritoneum so that the fatter the pa-

tient the more difficult it is to make sufficient squeezing compression to prevent the nephroptosis. The truth of the idea that patients under rest, tonics, etc., become permanently cured is contrary to my observation. Some of them are likely to improve for a time while they are keeping up the treatment, but they almost invariably relapse soon after its cessation or leaving the sanitarium. On the other hand, this form of treatment is expensive and only those who are able to afford the luxury can carry it out. Also many patients do not respond to this form of treatment to any extent, for the reason that the cause is not removed.

The idea that nephroptosis occurs more frequently in women who have borne children than those who have not is also misleading. In one hundred and seven* patients which constitute an incomplete list of my operated cases, fifty-seven of the patients were unmarried, and yet a number of them suffered from bilateral nephroptosis; also twenty-eight of these patients were operated on for retroversions, ten for appendicitis, one for stone in the kidney, and one for hydro-nephrosis.

During the past few years the professional mind has been so strongly imbued with the idea that right iliac pain always results from appendicitis that many mistaken diagnoses have been made and many appendices have been removed without benefit to the patient, whose symptoms arose from movable kidney. Personal experience confirms me in this belief.

The statements made in this brief article are based on observation of several hundred cases and are, I believe, correct. Formerly, I advised all patients to try palliative measures, and even now, I have a number of patients who prefer not to have an operation, under this form of treatment, but I have met with so much disappointment in the results that it seems to me foolish to recommend, especially to young patients, methods of treatment that can never be curative.

That patients relapse as a rule after the operation of nephropexy is contrary to my experience. Some cases may relapse, but I believe the proportion of cures where the operation has been properly performed is as high or higher than after the operation for any other surgical condition. Often the recovery of health is slow, and in fact I believe that many patients recover without realizing it. They have been so long in

*Between the reading and publication of this paper I am able to add 3 more cases making 110, of which 60 were unmarried, 29 had retroversions corrected and 11 the appendix removed.

the habit of feeling ill that they are apprehensive and are constantly expecting unpleasant symptoms and frequently they recover their health without knowing it; and it is only through the powerful, suggestive influence of some strong mentality that they are convinced that they have recovered. These are the cases which form some of the so-called brilliant cures which are ascribed to the Christian Science Healers. In bad cases it is unreasonable to expect the full good result of the operation for at least a year or two after its performance. Illustrating this point I wish to quote from a letter received from a lady in a distant city within the last three weeks. I quote from this letter because it is the last one I have received, but it is typical of many which I have in my possession:

“September 4th, 1907.

“DEAR DOCTOR WILCOX:—

“It has been on my mind for some time to write and tell you how well my daughter is. She is like an entirely different person in every way; bright and happy all the day long and enjoying everything that young people should enjoy. I feel that I have at last found my daughter and cannot be grateful enough to you for all you did. The other day for the first time I heard my husband say, ‘That money was well spent,’ and I can’t say that he thought so until now. . . . For the first time since she was thirteen years old has my daughter really enjoyed people.”

This patient was operated on about eighteen months ago, and is a typical one of one class of cases which come to us frequently for help. In a family where no expense was spared, with a mother who is sensible and not sentimental and who has done everything to further the pleasure and well-being of her daughter, this young lady was in miserable health and, in spite of all rest, tonics, and medicines was steadily drifting into a state of chronic invalidism. It is easily seen from the mother’s letter what has been the result of the nephropexy and Alexander’s operation.

I wish to cite only one other case as typical of another class. It is that of a young lady brought to me by Dr. Wm. H. Diehl, of Brooklyn.

She had been under treatment by various physicians for two or three years for disease of the knee joint. She came

into my office on crutches. On examination, there was no swelling, but I observed that she kept the knee constantly in the extended position. This, with other signs, made me think of hysterical knee, and on making a more thorough examination I discovered a movable kidney. I assured her that the knee was quite curable but that to restore her to complete health the kidney would have to be fixed also. Of course, I did not reveal to her my opinion regarding the knee. A few days later I fixed the kidney and made a few light strokes with the cautery over the joint just sufficient to redden the skin. In three days the joint was quite movable. She spent the usual time in the hospital for convalescence from the nephropexy and has been quite well since.

It may be claimed that the suggestive effect of the use of the cautery and the assurance that she would be well, effected the cure. That is partly true, but it must be remembered that all former treatment, suggestive or otherwise, had been ineffective, and it was not until something had been done to cure that enigma of medicine—the hysteria—that the result on the knee was obtained.

THE INDICATIONS FOR CYSTOSCOPY.*

BY

LEON T. ASHCRAFT, A. M., M. D., PHILADELPHIA, PA.

My effort will be largely a practical one, since I will endeavor to cystoscope one or more patients, thus illustrating my brief remarks. I say "brief remarks," because a paper dealing exhaustively with the subject of cystoscopy would consume a great deal of time, and, perforce, contain a great deal which would possibly not be interesting to general practitioners, inasmuch as such should include not only a history of the subject but also a description of the various methods in use.

The art of visually examining the bladder by means of an instrument introduced through the urethra owes its popularity to the untiring efforts of the late Nitze, and to-day no accurate diagnosis of either kidney or bladder lesions can be made with-

*A demonstration before the West Jersey Homœopathic Medical Society, Camden, N. J., May 15, 1907.

out its employment. Personally, where it is possible, I cystoscope every patient (the exceptions to which I shall speak of later), where there is any doubt as to the exact diagnosis. Of course, there are usually sufficient symptoms to enable one with fair diagnostic acumen to differentiate cystitis from pyelitis. But who can tell positively which kidney is diseased without inspection of the ureter, or, perhaps, catheterization of the ureters; or who can tell definitely whether cystitis is due to stone or tumor, or detect the exact location of ulcers, tubercles, or other pathological conditions, unless by actual inspection? I think you will all see that without such, accuracy is impossible; therefore, this establishes its imperative necessity. There are very few clinical features of pathological conditions which will prevent a thorough cystoscopic examination; such are confined to the more acute inflammations of the bladder. Even here, if imperative, the operation may be made by preparing the bladder by irrigations with a saturated solution of boracic acid. It should be remembered, however, that hyper-acute symptoms clearly centered on the bladder contraindicate its performance. The indications for cystoscopy are then found when it becomes necessary not only to differentiate between bladder and kidney lesions, but also to determine accurately their exact location.

Let me illustrate by reciting a short history of two cases, occurring in the practice of Dr. Grumbrecht, a member of this Society.

G. S., a laborer, fell from the deck of a vessel to its hold, injuring his back; shortly afterwards he voided bloody urine constantly for twenty days, during which time he was confined in a Philadelphia hospital. Without any local treatment or operative interference the bleeding stopped, and there was no recurrence for forty days, when suddenly, apparently without cause, it recurred and continued for ten days uninterruptedly. The patient passed long, thin clots. When I saw him he was in a very weak and alarming condition. The local symptoms were referable to both kidneys, but especially the right one. Cystoscopy showed the left ureteral orifice normal, and the right ureteral orifice swollen, congested, and spurting blood,—this gradually obstructing the view. I catheterized the right ureter with a great deal of difficulty by reason of obstruction due to clots, and succeeded in irrigating the pelvis of the kidney. This, together with internal medication of cantharis and berberis succeeded, within a few days, in allaying the hemor-

rhage. He has had no bleeding since. Two months have elapsed since the examination. Should the bleeding recur, we would, I think, be justified in incising the kidney, with the hope of permanently removing the cause of the hemorrhage.

Mrs. A. R., age twenty-seven, for the past two years had symptoms pointing to stone in the right kidney. She had attacks of severe characteristic pain on the right side, extending along the ureter, occurring several times monthly. The urine was cloudy and contained pus and blood; cystoscopy showed the bladder normal in every particular except slight congestion at the trigone. The right ureteral orifice was spherical and gaping. It was catheterized. No difficulty was encountered until the pelvis of the kidney was entered, when the catheter curled on itself. Bierhoff's Pelvic Distention Test for the Detection of Stone in the Kidney was then made, with positive results. The test is as follows:

A catheter is inserted into the ureter of the suspected side, and passed up until its eye lies within the pelvic orifice. (It is necessary to employ as large a catheter as will comfortably enter the ureteral orifice.) Having assured ourselves through the nature of the flow of the urine that the eye of the catheter lies within the renal pelvis, we begin to distend the pelvis by injecting sterilized boracic acid solution, up to such a point that the patient complains of pain in the renal region. This quantity usually amounts to about 30 c. c. The fluid is now allowed to flow off, and the maneuver is repeated until in all about 250 or 300 c. c. have been employed. In the presence of a calculus the maneuver is followed in twenty-four hours by a distinct hematuria, at times so pronounced as to be clearly visible to the naked eye. The urine should not, however, be examined for the presence of blood until from twelve to twenty-four hours have elapsed, so that the mild bleeding resulting from the unavoidable slight traumatism by the catheter shall have had a chance to cease.

Blood found in the urine after this test has invariably revealed to me the presence of a renal calculus, even where the X-ray had given a negative result in the hands of experts, and in no case in which a negative result was obtained by means of the pelvic distention test did either the X-ray or an operation reveal the presence of a stone.

The hematuria which results from the pelvic distention test, in the presence of calculus, is due to the dislodgement and move-

ment of the calculus by the stream of fluid, and, as a result of this dislodgement, blood results from traumatism of the pelvic membrane.

The urine showed blood, pus, uric acid, epithelium, and casts. An X-ray examination confirmed the diagnosis of stone. In passing I wish to say that, while I am a firm believer in this test for calculus, I always advise X-ray examinations, since by such means (especially if a positive picture is seen) any element of doubt may be dispelled. In fact, a proposed operation on the kidney should never be made until every possible diagnostic means at our disposal is employed for an accurate diagnosis. The left ureter was catheterized, and the urine examined and found normal. I removed the stone, and the patient left the hospital thirty-six days after operation, since which time she has had no return of the symptoms.

The third case illustrates a bladder condition. This patient I have here to-day, and will present him for examination.

H. C., age thirty-eight, consulted me August 4, 1906, presenting this history: Two years ago he had a fall on the pavement which caused incontinence of urine and feces, likewise inability to walk without crutches; he became progressively worse. During these two years he consulted the most eminent neurologists of Philadelphia, and was exhibited before many clinics. Their diagnosis was transverse myelitis, with progressive muscular atrophy. When I examined him the urinary symptoms were the most distressing, he had been leading a catheter life for a year. The urine showed pus, free blood, and all the elements of a foul cystitis. Cystoscopy showed several calculi in a pouch behind the prostate. On September 15 I removed these stones by suprapubic cystotomy, and the patient made an uneventful recovery. The urine is now clear, and is passed naturally. His gait is so much improved that he goes without a cane or any mechanical support, except when taking long walks. My diagnosis was, pressure neuritis. To recapitulate, then, the indications for cystoscopy are, broadly speaking, to differentiate between kidney and bladder disease, and to locate definitely the areas or parts involved. For obvious reasons I will not attempt to describe what one may see while making a visual examination of the bladder, but will content myself by saying that one may inspect the summit, sphincter, sides, trigone, and region about the prostate and the ureteral orifices, detecting probably calculi, foreign bodies,

tumors, tubercular or gonorrheal ulcers, and areas of recent or old cystitis. The ureteral orifices may likewise be inspected, thus detecting their size, shape, and action, watching the urine as it spurts from their orifices, noticing any abnormalities, timing their systoles and diastoles, detecting the exact source of pus or blood, and if necessary catheterizing them, either for diagnostic or therapeutic purposes.

In this paper I have purposely omitted any minute discussion concerning ureteral catheterization, or ureteral therapy. but I have confined myself at this time merely to the indications for visual examination of the bladder. The art, however, is not without its therapeutic possibilities, since by means of the operating cystoscope one may remove portions of tumor, preserving such for microscopic examination,—the therapy for such to be determined later. Also, by the cystoscope of Brown or Bransford Lewis, topical applications may be made to localized bladder areas, the seat of ulceration, or foreign bodies such as small stones may be crushed. The instrument which I use is made by Lowenstein, after Nitze's pattern. I will not enter into a technical description of it, since such may be obtained from any up-to-date work on genito-urinary diseases; but will simply say that during the past five years, in both hospital and private practice, I have employed every recognized method of cystoscopy,—(this includes direct and indirect vision cystoscopy, with both air and fluid dilatation of the bladder),—and, after several hundred examinations, I prefer the indirect, or Nitze, for examination of the bladder, and for ureteral catheterization, both in the male and the female. It must not be imagined that the others are of no value; they are especially so for female work or for removal of free bodies within the bladder—but, in my opinion, the Nitze is ideal, because by reason of its construction it permits of inspection of every part of the bladder of both sexes,—a thing not possible with any other instrument. The technic is very simple.

Any ordinary office or household table, of sufficient length, will answer for the patient to lie upon. The table I prefer is one which has foot-stirrups and admits of a semi-Trendelenburg position. All clothing which constricts the waist and knees must be removed. Occasionally one must have several days' preparation for the operation; for instance, urethral tolerance may in very nervous individuals have to be acquired, or very purulent urine may necessitate several days of bladder ir-

rigation, before satisfactory results may be expected from examination. The patient being placed in position, the parts must be rendered as aseptic as possible; all instruments, too must be rendered aseptic. Since we cannot sterilize cystoscopes by boiling or other methods, we must content ourselves with standing them in a weak solution of carbolic acid, and immediately before using wipe off with alcohol—this renders them decently clean. The following essentials are necessary for the operation:

1. The urethra must have a caliber of at least 23 F.
2. The bladder must have a capacity of 5 ounces (although I have viewed it when the capacity is much less,—about 3 ounces).
3. There must be a clear medium.

The first requirement precludes stricture and hypertrophy of the prostate or other tumor, the second a very much contracted bladder, the third calls for numerous bladder irrigations. It is very necessary that the electrical apparatus be in perfect order, otherwise embarrassment will surely follow. The patient is placed in position, a soft rubber catheter is introduced within the bladder, and the urine withdrawn slowly. If it be cloudy, the bladder must be irrigated with a 3 per cent. solution of boracic acid, until the reflux fluid is clear. Five ounces must then be left *in situ*. I never use any general or local anesthetic, except in very nervous individuals or where there exist acute conditions, in which event I prefer a general anesthetic. The cystoscope, lubricated with glycerine, is passed into the bladder, after the manner of introducing a sound,—the examiner, being seated at the foot of the table, holds the cystoscope with the left hand, and manipulates it, if necessary, with the right. The light is then turned on. By means of the so-called cold-lamp a high degree of light may be obtained, and the instrument held in the bladder thirty minutes or more without causing any discomfort resulting from heat. The summit of the bladder is first examined; next the instrument is drawn toward the operator, so that its beak lies just beyond the sphincteric margin.

Here we may inspect the sphincter. Next, by pushing the instrument further into the bladder and rotating slowly, either side may be examined. By turning the beak of the instrument downward, the base is brought into view. Here, by drawing the instrument toward the operator, one sees that triangular

space known as the trigone, recognized by its pale color. By rotating the instrument along its upper boundary the ureteral orifices may be seen. They lie about two inches apart from each other. They resemble a cone, with slit-like openings. After viewing them for thirty seconds one may detect urine spurting from them. Again by drawing the instrument toward the examiner the prostate may be fairly well examined. Notes are made of the condition seen; the light is turned off, the instrument withdrawn, and the bladder thoroughly irrigated with a 1-4000 solution of nitrate of silver.

I have not attempted to give a description of the normal or pathological bladder, since nothing can be gained thereby. I have brought a few plates illustrating both normal and pathological conditions, but complete satisfaction may be obtained only through long and arduous practice with the cystoscope.

ANAL FISSURE.

BY

C. ALBERT BIGLER, JR., M. D., PHILADELPHIA, PA.

(Lecturer on Rectal Diseases, Hahnemann Medical College; Clinical Chief of Rectal Surgery, Out-Patient Department Hahnemann Hospital.)

THE heading of this article refers to a lesion named by Allingham, "Irritable Ulcer," and very appropriately so, for this designation describes accurately its true pathological nature. It is so called because of its exquisite sensitiveness, due to irritation of the exposed sensory nerves by the passage of fæces over its surface, the escape of gases, or from voluntary or involuntary acts, such as laughing, coughing, sneezing or straining, which would cause the external sphincter fibers to contract.

This characteristic feature of anal fissure, or irritable ulcer, if you please, can be readily demonstrated by examining a patient with this condition, for no matter how skilful or gentle we may be in introducing the finger within the anal orifice, at the same time exercising the greatest care to bring its point of contact at the most remote part from the ulcer, we can seldom avoid giving pain. Indeed, this feature is at times so pronounced that an examination is rendered impossible without first applying at least a local anæsthetic.

From the fact that some of these ulcers cause less suffering than others, Gosselin and Mollière, each distinguishing between the acutely sensitive lesions and those that are less so, suggested the terms "tolerant and intolerant" ulcers and "tolerable and intolerable" ulcers respectively. To fully appreciate this distinction, it is necessary to have a knowledge of the position and distribution of the nerves at the lower end of the rectum. Hilton first called attention to the fact that these nerves come down below the internal sphincter muscle and pass out at its inferior border between it and its fellow, the external sphincter, where the terminal filaments spread out over the latter muscle, mucous membrane and papillæ. From this brief description it will be seen that a break in continuity of the orifice must of necessity expose one or more sensitive nerve twigs and as they convey impulses which control the action of the sphincter, we can readily understand why, from over-stimulation, it is invariably found spasmodically contracted when a lesion is located within its grasp. On the other hand, an ulceration can exist above the external sphincter without producing any pain.

A typical anal fissure is usually single, but there may be two or more present at the same time. It appears as a more or less superficial ulcer, located at or near the junction of the skin and mucous membrane (Hilton's white line), in the sulci between the radiating folds, into which the anal orifice is thrown by the contraction of the external sphincter. It may be either elliptical, pear-shaped, linear, oval, circular, or triangular in form, although Quenu and Hartmann, after a careful study of this subject, are of the opinion that were the fissures dissected out and laid flat upon a block, they would be either elliptical or circular in form; that the elongated shape is only apparent and is due to the fact that the ulcer is within the bite of the sphincter muscle. The edges may or may not be indurated, but are inflamed and are folded into the wound from muscular contraction. Its base is either bright red or greyish in color, with a thin layer of mucus, serum, blood or pus, or a combination of any of these smeared upon its surface.

The lesion extends parallel with the long axis of the anal canal. Its length varies from one-quarter to three-quarters of an inch and its depth from a simple abrasion to an actual laceration of the sub-mucous and sub-cutaneous connective tissue, laying bare the muscular fibers.

At the lower angle of the fissure there will sometimes be noticed an inflamed and painful cutaneous tag. Because of its resemblance to a variety of external hæmorrhoids and that immediately above it will be seen a fissure, Brodie named this tag the "Sentinel Pile," which name it has since held. Ball claims that it is due to the tearing down of an anal pocket and that its presence could always be determined, while Goodsall and Miles are of the opinion that the small tumor is merely œdematous skin, the result of venous and lymphatic obstruction; that it will often be seen in other diseases, such as piles, pruritis and eczema and that its presence is by no means so frequent an accompaniment of fissure as Ball has observed; as a matter of fact, it has been the exception rather than the rule. Their statistics show that in 221 cases, in only 14 was it present.

An irritable ulcer may be located at any point in the anal circumference. Those situated anteriorly are usually in females, but the majority will be found in the posterior commisure, immediately to the right and left of the median line. This preponderance is accounted for from the fact that the anus posteriorly is less movable, being more or less firmly attached to the coccyx, by the ano-coccygeal ligaments, and that the direction of the canal above is backward, hence a greater strain is thrown upon this region from pressure of the mass in the rectal ampulla, and from over-distention during its evacuation.

It occurs at all ages, but is more common in adults. When found in infants and children, hereditary syphilis should be suspected. As to sex, most proctologists agree that it is more prevalent in females than in males. Allingham, Smith, Van Buren, Kelsey, Cripps, Gosselin, Ball, and Tuttle are of this opinion, while Goodsall and Miles and Gant have met with a greater number in the opposite sex. Within the past three years, fifty-two patients were treated by the writer for fissure, both in the out-patient department of the Hahnemann Hospital, and in private practice. Of this number thirty were females and twenty-two males. Five were located in the anterior quadrant (median line), all women; two in the left quadrant, three in the right quadrant and the balance in the posterior wall, (42), ten directly in the middle line and the remainder (32) immediately to the right and left of this line. The writer also saw thirty-eight cases of fissure in St. Mark's Hospital, London, during the months of August, 1905, 1906, and 1907. Of this number twenty-two were females, fifteen

males and one in a syphilitic little girl with an enormous condylomatous growth completely surrounding the anus and extending laterally as far as the tuber-ischii on either side. That the greater percentage of this disease is found in females is thought to be due to two factors; that constipation is more prevalent and that their integument is thinner and more easily lacerated.

As to etiological factors capable of producing fissure, it may be said that any diseased condition which would tend to irritate or weaken the tissues at the muco-cutaneous junction, rendering them dry and less pliable, would act as predisposing causes. These include leucorrheal or gonorrheal discharges in the female; some of the skin diseases, as pruritis ani, herpetic vesicle, psoriasis and eczema; discharges from fistulæ, proctitis, colitis, and from dysenteric, syphilitic, tubercular and malignant ulcerations; from an irritable, contracted external sphincter, due to the lodgment of a foreign body in the lower anal canal, or to a polypus that is within the grasp of this muscle. Also from procedentia recti, stricture and diseases of adjacent organs, as well as a congenital narrowing of the anal orifice.

The exciting causes are in the majority of instances dependent upon traumatism, chief among which is the evacuation of a large, hard, dry stool which has not been moulded to the capacity of the outlet and when the evacuation finally occurs the mucous membrane has been overstretched and torn. The same result may be brought about by the fingers or instruments, the rough introduction of the syringe nozzle, tearing the parts from the use of improper detergent material, operations for fistulæ and hæmorrhoids and from the descent of the child's head during parturition.

There is perhaps no disease to which humanity is heir, at least located in the ano-rectal region, and certainly none so apparently insignificant in appearance that causes a greater amount of suffering and general miserableness than irritable ulcer, unless it be its analogue, the one on the cornea. From a group of symptoms which are practically always found associated with this lesion, namely, pain, irritable sphincter, constipation, irritating discharges, with itching of the parts, and reflex symptoms, these subjects are often reduced to a state of chronic invalidism and when the physician, as is often the case, is finally consulted, he not unfrequently sees an emaciated, ca-

cheetic, melancholic, nervous and exhausted individual who gives the appearance of malignancy rather than a simple little fissure.

Of the many symptoms for which a fissure is responsible, the one that stands out in bold relief and upon which we are able to determine its presence with almost absolute certainty is the peculiar paroxysmal pain, although a physical examination of the anus and rectum should never be omitted, however characteristic the subjective phenomena may appear. The most striking feature of the pain is that it invariably occurs during or after a bowel movement and persists for periods ranging from a half hour until the next action of the bowels. The pain is described by some as burning, cutting or sticking which is localized at the site of the lesion, while in others a dull ache or throbbing sensation similar to that of an aching tooth, referred to the sacrum, thigh or leg is complained of. As a rule the pain ceases abruptly and does not tend to recur until the bowels again move.

Constipation is a constant feature of the disease and its cause is self-explanatory. Defecation is very naturally postponed as long as possible because of the inevitable pain that follows a motion, thus the constipated habit is formed, which condition, for obvious reasons, only adds fuel to the flame. Sphincteric irritability has been previously referred to. Acrid discharges cause an itching of the anus and adjacent parts and is a very annoying symptom. For its relief scratching is resorted to which accounts for excoriations at the anal margin, sometimes seen in conjunction with fissure. Hæmorrhage is seldom severe although bleeding may be quite profuse, especially at the time the rent occurs, otherwise it is an inconstant symptom.

Reflex symptoms are readily explainable. According to Hilton, the exposed sensory nerves receive impressions and convey them to the same centre of the cord from which spring the sciatic, lumbar and ilio-lumbar, including the motor nerves of the external sphincter as well as the lower extremities and bladder. This accounts for the retention of urine following operations upon the rectum, also the pains referred to the thigh, leg and back, so characteristic of rectal diseases. It also explains the spasmodic contractions of the external sphincter when the nerves supplying this muscle are irritated reflexly from diseases located in the urethra.

In considering the treatment of this distressing lesion it is gratifying to state that there is no surgical disease that responds more readily to the proper operative interference than this one. A speedy cure can be effected by making a straight incision through the base of the ulcer of sufficient depth to sever the underlying fibers of the external sphincter muscle and long enough to include about one-half inch of skin in the cut. Any overhanging edges are scissored off, as well as a sentinel pile and when any complications exist, as a polypus, papilloma, etc., their removal is accomplished at the same time. Every second or third day the wound is cleansed with bichloride of mercury solution and stimulated with iodoform powder. This operation can be performed in a practically painless manner by the injection of a local anæsthetic beneath the base of the ulcer, but it is unquestionably more satisfactory both for the patient and the surgeon when a general anæsthetic is given and the recumbent position is enjoined for a few days afterward. In most cases nitrous-oxide gas is sufficient.

The bowels should receive careful attention, particularly while the wound is healing. A good plan is to encourage the patient not to have a movement for forty-eight hours and then an enema of warm water followed by an injection of six ounces of olive oil is given. This should be retained as long as possible and immediately upon its evacuation the wound is redressed in the same manner as above stated. The bowels should move regularly, one soft motion daily being desirable, but this will be found a very difficult matter to accomplish as most of the patients are chronically constipated. Any one of the following remedies has proved efficient in the writer's practice to regulate the number and consistency of the stools: Castor-oil, fluid extract of cascara, cascara with malt, phosphate of soda, compound licorice powder, confection of black pepper and senna (equal parts), olive-oil, carabana and hunyada waters. It is necessary to experiment with each patient the amount of the laxative to be given, for what may produce a severe diarrhœa in one may have no effect upon another. Occasionally these agents fail when the use of an enema of water, either alone or with soap suds or glycerine is necessary. A diet consisting of milk, cream, soups, eggs, fruits, in fact all articles of food that are known to have no constipating or diarrhœal effect should be indulged in and the ingestion of much water may aid materially in softening the intestinal contents.

Divulsion as a means of curing anal fissure has won much favor because it is a non-cutting operation, no instruments are required and little if any after treatment is necessary. In these respects this method has no equal and were it not for the fact that its usefulness is limited to carefully selected cases only, it is doubtful if any other operation would be employed. Unfortunately, however, in only those cases where the fissure is of recent occurrence, without hypertrophied muscles, indurated edges and base and uncomplicated, should it be attempted, otherwise failure will frequently follow and an excellent method when intelligently used will thereby be brought into bad repute.

For the benefit of patients who are unalterably opposed to operation, however slight it may be, recourse may be had to local applications, although it is advisable to avoid this line of treatment when possible. A conical fenestrated speculum is introduced within the anal canal and the slide is removed, when the fissure in its entirety is in full view. Having anæsthetized the ulcer with solutions of cocaine or eucaine, or powders of orthoform or anæsthesine, a pledget of cotton saturated with pure ichthiol is applied to the diseased area. This is repeated every two or three days, and if at the end of four to six weeks the fissure has not healed it is doubtful if it ever will until a radical operation is performed. Other agents that have given satisfaction are argyrol, balsam of Peru, lignol, iodoform powder, bichloride of mercury and silver nitrate, the latter in stick form or in solution.

Permit me to add the history of one case which, while extreme in character, will serve to illustrate most of the statements made in this paper:

Some months ago a female, age 45 years, consulted me for pains in the rectum. She was greatly emaciated, her face was pinched, complexion sallow, was very nervous and altogether presented a pitiful sight. She stated that as near as she could remember she had been a sufferer for seventeen years; that during that period with but few exceptions she had not had a natural bowel movement, that she had relied upon copious injections of soap and water and at intervals ranging from five to seven days. The tormenting pain that followed was so severe as to keep her in bed for twenty-four hours thereafter. Questioned why she had not sought surgical treatment before, she replied that she thought she had a cancer and that nothing

could be done for her and also that her dread to undergo an examination could not be overcome until eventually her tortures were unbearable, at which time she applied for treatment. On examination of the parts, an inflamed "sentinel pile" was seen, located in the median line posteriorly and above it there lay a deep fissure, in which were seen the fibers of the external sphincter. On withdrawing the finger, introduced for the purpose of detecting any complication in the rectum, a polypus followed it. Under nitrous oxide gas the muscles were divulsed, the "sentinel pile" overhanging and indurated edges were excised, the exposed fibers in the ulcer were divided and the polypus snared. It may be of interest to note that in three months' time she had gained thirty pounds, and that her rectal functions were performing normally and with comfort.

GENERAL ACTION OF SULPHUR.

(Continued.)

BY

EDUARDO FORNIAS, M. D., PHILADELPHIA, PA.

I HAVE given in the first section of this study a resume of the role of SULPHUR in the economy and of the changes it undergoes in normal and abnormal states of the organism. I have endeavored to show the favorable influence, certain *catabolic changes*, such as *sulpho-conjugations* and *intense-oxidations* have upon *infection* and *auto-infection*, and I sincerely hope all future students of Homœopathy, with the advantages they have now, will, at least, acquire a solid knowledge of the decomposition and combustions continually going on in the human organism, as well as of the high organic combinations by which heat and force are produced. We all should always bear in mind that the constitutive parts of our tissues are constantly renewed, and that the old elements and cells must disappear to make room to new forms. This is the cycle of life, and it must be well understood to appreciate and foretell the consequences of the lack of nutritive equilibrium.

It is essential that we should know thoroughly our therapeutic agents, and we should remain true to drug-pathogenesis, but the symptomatic counterpart must also be known. In fact,

if we understood well the *pathology of metabolism*, we can readily set a just value on the wonderful effects of SULPHUR upon *retrograde metamorphism*, especially those tissue-changes brought about through its direct influence on the living cell. No matter how thorough our knowledge of *Materia Medica* may be, it is not sufficient to master the healing art. We must be able to interpret the general conditions underlying perverted functions of the organs and the results therefrom, as well as the methods of determining and explain these perversions. Nothing of this could be rightly valued without, the examination of the stomach's content, urinalysis, microscopical examination of the fæces for blood, pus, amœba, food particles and microbes; a knowledge of hematology, as well as the chemical examination of the blood, exudates and transudates.

Only after knowing well how SULPHUR enters the organism, how it behaves there, and what becomes of it, can we surmise how deep must be its *dynamic action*, when therapeutically administered. There is no doubt among us as to its action upon every cellular element of tissue, especially the *ganglionic cells*, centers of so many nervous influences. How could it bring about, otherwise, those wonderful reactions recorded in our clinical history, when other remedies apparently indicated have failed to do their work? It is thus that we understand how it becomes the pivot upon which all our remedies rotate. Indeed, with our present knowledge, one can well dare to state that not only the *organic cell*, with its intra and extracellular products, and especially the true nerve-cell (*neuroma*), but the toxins and enzymes are in some way or other influenced by SULPHUR. Does not *sulphur*, like *carbon*, as stated before, enter into the most diverse and complicated organic combinations; does it not combine with *carbon*, *oxygen*, *hydrogen* and *nitrogen* to form *living plasma*, and do we not find it associated with *phosphorus*, *potassium*, *calcium*, *natrum*, *magnesium* and *iron*? —(biological elements forming the greatest elementary group of tissue-forming material), all of them individually, having chemical affinity for the living cells and a powerful influence upon histolysis, invigorating the system and restoring tissues to their full integrity when altered by pathological processes.

SULPHUR then is not only an *organogenic*, but a *dynamogenic element*, and when the physiological principles underlying *metabolism* and *nutrition* are reminded and we consider that cellular function depends upon the blood plasma, of which

this drug, I repeat, is an indispensable element, we cannot fail to make a better estimate of its value as a remedy. It is from this *sulphur-containing plasma* that the cells draw and appropriate the principles necessary to their life, as well as those which are essential to the performance of the special functions with which they are endowed. Even when absorbed by the skin, it travels through the system with the blood, is partially utilized, and returns back to the cutaneous surfaces combined with metabolic and excretory products. How far then it interferes with the mysterious evolution of the organic cell, I am unable to say, but the fact remains that combined with fatty acid it is expelled through the bowels and skin. The *products of combustion and sulpho-conjugations*, in passing through the skin, do not only emit peculiar odors, as it has been stated elsewhere, but tarnish black, coins or any article of silver carried by those subjected to its influence. This is an undeniable fact. Brinton in his "Action of Medicine" asserts that when *sulphur* is applied to any living organism, especially to low organisms, it seems to be taken up by the protoplasm and then to combine either with *hydrogen* or with *oxygen*, and yield the products of its union (H^2S or SO^2) and that what occurs in the low organisms, occurs also in the higher. "If you take SULPHUR two or three times a day," he says, "you will find that it is absorbed from the stomach and intestine, it is carried by the blood, passes to the skin, and is there excreted in the form either of *sulphides* or of *sulphurated hydrogen*, so much so that any silver carried about the person's body, coins, watches or bangles, become blackened by its action." "Oddly enough, *sulphur* is absorbed also from the skin. At one time I did not believe this, but I had a patient who was suffering from rheumatism, and she put *sulphur* on her stockings and wore them all night. This was absorbed and passed out by the skin so as to blacken her bangles."

"SULPHUR is a substance which is taken up and excreted by living organisms generally, and if it be put on various fungi they do the same: they take it up and then excrete it; but what happens to them is this: the *sulphur* is transformed by them into *sulphurated hydrogen* and *sulphurous acid*, and these products are fatal to the fungi. So in cases where a fungus is doing harm, as in the case of the vine disease of Italy, *powdered sulphur* is dusted all over the vine; the fungus takes up the *sulphur* and forms *sulphurated hydrogen* and *sulphurous acid*,

which are fatal to the fungus itself." This is a lesson worthy to be remembered.

"Before the introduction of antitoxin, *sulphur* was used as a powder to the throat in cases of *diphtheria*, and there it seemed to have a similar action to what it has in the vine disease, and I have seen very good results from its insufflation. It is also used as a remedy in various *skin diseases*, for which it is both given internally and used externally." (Brinton.)

Ringer, on the other hand, asserts that SULPHUR dusted on the skin produces no effect, but mixed with lard, or other unctuous substances, and rubbed in, it excites a slight degree of inflammation, and that its use to-day is almost entirely restricted to the cure of the *itch*. It is, however, universally admitted that this severe method of destroying the *acarus scabici* and its *ova* does not only irritate the secondary lesions (*eczema*, *impetigo*, etc.) set up by the parasite, but that the mildest *ointments of sulphur* are capable, in many instances, of exciting rashes similar to those produced by the *acarus*, or of aggravating those already in existence. No one should wonder then that SULPHUR has been so successfully employed, both internally and externally, by our friends, on the other side of the fence, for various skin diseases. Ringer, himself, indorses the internal administration of SULPHUR, in *chronic eruptions of the skin* of dartrous (*psoric*) family, such as *acne*, *psoriasis*, *impetigo* and *eczema*. On our side, we know that this drug produces and cures *vesicles*, *pustules*, *pimples*, *blotches*, *boils*, *various forms of herpes*, *erythema* and *tinca*, as well as ulcerations of the nails and other forms of ulceration. It did once produce an eruption so much resembling the *itch*, that one of the provers feared it might be the disease. These may be revelations to the ignorant, but are nevertheless facts.

No local application is more injudiciously made than that of SULPHUR; fortunately, however, as there is water in every tissue and the ordinary atmospheric pressure and temperature in every cell, we may assume that the animal body has command of ways and means by which it can achieve further attenuations of absorbed substances, thus protecting the organic cells from harm. Of course, we are still in ignorance of the intimate nature and application of such forces and agents, but from observation and the results obtained, we may well infer that these *physiological dilutions* play an important part in the reactionary and recuperative processes of the organism.

Psora, before Hahnemann's days, did not only embrace *scabis*, but almost all *chronic vesicular diseases of the skin*, especially those which became pustular and scabby and were attended by distressing itching. Those acquainted with the history of medicine do know also the many incertitudes and discussions which preceded the acknowledgment of the parasitary origin of this trouble. The Greek word *psora*, which means I scratch, was, in fact, used in those times, by many authorities, to designate a constitutional state of the organism, usually hereditary, characterized by certain morbid manifestations of variable seat and intensity, whose common attributes were: fixity, hypertrophic and ulcerative tendency of the tissues, cutaneous lesions, and indolent course of the alterations. The most ordinary seat of these changes were: the *tegumentary, lymphatic and osseous systems*, with or without tuberculous tumefaction of the superficial glands of the neck. It is really the syndrome of that constitutional disease known for years under the name of *struma*, and which many to-day inconditionally consider of *tuberculous origin*. It is, I think, the chronic pathological condition described by Hahnemann under the name of *psora*.

There are other points in connection with the *itch*, which are worth while to discuss. Some physicians claim that the *scrofulous soil* offers a favorable *nidus* for the development and multiplication of the *acarus scabiei*. Others believe that the *acarus*, after it burrows the skin, infects the organism with its incubation products, and excites *cutaneous lesions*, principally of an eczematous and impetiginous form and pruriginous character. Reports have been even made of *febrile disturbances* and *acute diarrhæa*, following the invasion of this arachnoid parasite. Under such inferences we can well accept, as true, the presence in the blood of a lurking poison derived from the *acarus* and its *ova*, capable by itself of engendering mischief, or of maintaining active pre-existing *constitutional dystrophias*. Could not the *acarus* be, like the mosquito, trichophyton and other parasites, a carrier of infection? Who has not frequently observed the constitutional debility and emaciation produced by the mange on domestic animals, as well as the harmful effect of the tick on sheep and horses? Who ignores in our days the destructive effects of certain fungi on vegetable life? Organisms in perfect health may resist and cope advantageously with the intruder, but the enervated must nec-

essarily undergo misery and occasionally succumb. "Parasites and germs, like the moss and lichens on the tree, attack the feeble ones. We may scrape the trees, whitewash, syringe and what not—the moss and lichens persist in growing and sapping the little remaining vitality of the tree." (Allen.) We may know enough of the origin, behavior, mischief and power of reproduction of the *acarus scabiei*, but of the cellular elements and toxic products of its own, we are in complete ignorance. What becomes of the dark mass of accumulated ova, fæces, debris and adherent dirt contained in the interdermic nests? We know that the seats of election correspond to those regions where the skin is most delicate, thrown into folds, and richly supplied with glands. How can it be possible then, for the lymphatics of the parts involved, to remain passive in the presence of so much toxic material? Is not *scabbing* a feature of deep penetration? Let those who absolutely inculcate the nails for the attending lesions, answer these questions. But no matter what the theory of *psora* may be, we know its *symptomatic manifestations* and consequently have been able by means of our therapeutic measures to improve the faulty nutrition grafted in this morbid state of the organism; and that Hahnemann was far from wrong in his deductions about the *chronic miasms*, is shown by the results we have obtained under the application of his law, and by the support indirectly given to his views by recent experiments. (Charrin. *Poisons de l'Organisme. Le Dantec. Traite de Biologie.*) Views which may have been too general, and even erroneous in some of the details, but we have to admit, that, at his time, he went further than any in the practical solution of the problem, bequeathing us a knowledge (§§ 77, 78, 79, 80, 81, 204, 205 and 206 of the *Organon*), which has been prolific of good results.

How far SULPHUR affects *metabolism*, a careful review of its rich pathogenesis will readily show; and when we consider that SULPHUR, like IRON, acts as a carrier of *oxygen*, we can well surmise its *dynamogenic power* in many *chronic morbid states of the constitution*. We know well that under its *dynamogenic* action all excretory organs are brought to increased activity, and we are also aware that all manifestations of *depraved nutrition*, especially inherited morbidity, are nowhere so evident as in the *tegumentary, lymphatic and osseous systems*. The impaired nutrition, the emaciation, the excretions, the enlarged glands, the cutaneous lesions, the thickened epiphyses of the

long bones, etc., all suggest a *degenerative process*, on the one hand, and on the other, a growth in excess of cells of inferior quality—a *hyperplastic process*. Any neoplasm existing in this morbid soil is an *inferior or degraded form of cell-life*, and if the crowding of these imperfect cells, in a gland or tegument passes a certain point, the gland structure breaks down into a *strumous abscess*, or an *ulcerative process* starts in the tegumentary tissues.

In the *inherited manifestations of catabolism*, the inferior cell of the progeny must no doubt have acquired its standard of vitality from the parental cell. Egbert, of Philadelphia, asserts, that *heredity* is a characteristic jointly possessed by two cells, furnished by respective parents, which join and form a *fused cell*, and which carries on its evolution under certain governing impressions indelibly stamped by the two parental lines of descent. "But is not *heredity* also the transmission to the offspring from parent or ancestor of a trait, type, temperament, characteristic, or predisposition, which has a governing or influencing effect upon the growth or nature of the offspring?" Moreau, quoted by Egbert, states, in his "*Psychologie Morbide*," that it shows an incorrect conception of the *law of heredity* to look for a return of identical phenomena in each new generation, and according to Morel, "*Traite des Degenerescences*," we should not mean exclusively by *heredity* the very complaint of the parent transmitted to the children, with the identical symptoms, both physical and moral, observed in the progenitors. By the term *heredity*, says Morel again, we understand *the transmission of organic disposition from parents to children*. Egbert sets forth, that in *true hereditary disease* the faulty condition must be transmitted in the *germ-plasm*, and not be due simply to accidental factors affecting the embryo during its foetal development. And Bunge remarks, that through one single *spermatozoon*, through this minute cell, five hundred millions of which would hardly occupy one cubic millimeter, all the physical and intellectual peculiarities may be transmitted from father to son, or even, skipping the son, may again, by the agency of one single minute cell, reappear in the grandson. If this is really a mechanical process, how wonderful must be the molecular structure, how complicated the interchange of forces, how intricate the forms of motion, in this small cell which shall direct all subsequent forms of motion, and the mode of development for generations! And how shall

this minute structure transmit mental qualities? The smallest cell exhibits all the mysteries of life, and our present methods of its investigation have reached their limit, but we may improve our methods, we may acquire microscopes of still higher power than those we now possess and then be able to extend our knowledge of *cell-capacity*, thus solving the mysterious problem of organic development and decay.

The influence of SULPHUR upon *inherited constitutional disorders*, or congenital debility is unsurpassed, as we may well call it, not only the scavenger of the blood current and the regenerator of the plasma, but a kind of synergic agent capable of co-operating with all our remedies in the restoration of healthy function. No drug of our *Materia Medica*, with perhaps the exception of *CALCAREA CARBONICA*, has a greater power to *correct chronic metabolic difficulties, modify depraved systemic habits, and entirely arrest errors of development and nutrition*. The participation of SULPHUR in the formation of the plasma is probably the most important of its attributes, and if its clinical history has been truthfully written, we can well understand how, aided by the inherent energy and the natural defenses of the organism, it hastens the absorption and elimination of morbid matter and gives new vigor to the enervated cell, so improving disturbed metabolism, circulatory rhythm, nutritive repair and organic capacity. In fact, from its deep action and the beneficial results following its administration, I infer that SULPHUR penetrates every structure of the organism, explores and ransacks every corner and cavity of the body, carrying off in the vortex of the osmotic current, and through the intervention of the intestinal cells, the products of infection, disintegration and repair, and even, that it stimulates the organic cell to perform its elective work, correcting disturbed hematosis, restoring secretion and excretion, arresting hematosepsis and histolysis, and favoring the re-establishment of neural function, when impaired by prolonged disease.

Ringer, of London, claims that SULPHUR is quite insoluble in any of the fluids of the *mouth* and undergoes no change in the *stomach*, and in no way affects the *mucous membrane of this organ*, but we must reject such assertions, when we consider that this drug is used externally as a parasiticide, that it produces cutaneous lesions of importance, and that when applied to the skin is absorbed, entering the circulation of the

blood and returning back to the external surfaces after considerable chemical changes. We know, besides, that its activity is increased when potentized by our methods, that only infinitesimal portions of matter can enter into the whirl of osmosis and reach the organic cell, and that substances held in solution act like gases, the dissolved molecules behaving exactly like the molecules of a gas, and exerting a pressure upon the walls of the containing vessel by their endeavor to diffuse themselves through the greatest possible space. Ringer, however, thinks that in the *intestines*, the case is quite otherwise. "Here," he says, "in ordinary doses, SULPHUR causes rumbling, slight colicky pains followed in a short time by a softened evacuation, sometimes soon repeated. From the occurrence of colic, and the semisolid conditions of the motions, it is generally held that SULPHUR acts only slightly on the *mucous membranes*, but purges chiefly by exciting contractions of the muscular coat of the intestines." Although these are speculations which do not concern us, coming from hostile ground, they deserve to be noticed. We must also give heed to two highly engaging remarks of this eminent authority: One is, that the prolonged use of SULPHUR excites a *catarrhal state of the intestinal mucosa and impairs digestion*; the other, that *precipitated sulphur*, being more finely divided than the *sublimed*, acts more surely and effectually as a purgative. Remarkable is, likewise, the mention of this drug by our opponents, in connection to hemorrhoids, prolapsus ani, stricture of the rectum, and obstinate constipation.

We Homœopathists know well the disorders SULPHUR is capable to create, not only in the *intestines*, but in the *stomach* and *liver*, organs so much engaged in the process of *nutrition*. The *liver* is, probably, the most frequently affected by *congestion, enlargement, torpidity* and even *atrophy*, and here *abdominal plethora, portal obstruction, hemorrhoids and constipation* are usual attendants. *Irritation, inflammation and fermentative changes*, are conditions more frequently noticed in the *stomach* and *intestines*. *Constipation and diarrhœa*, or both alternately, with or without *tenesmus*, are common phenomena of its *intestinal disorder*, while *vomiting*, with *abnormal appetite, eructations, pyrosis* and various distressing *disturbances of sensation* (goneness, faintness, gnawing, hungry feeling, etc.) are usual attendants of *gastric disease*. All these *morbid states* indicating how far *digestive metabolism* is under the control of this polychrest.

SULPHUR is essentially a *venous remedy*, with a special affinity for the *abdominal viscera*, and principally for the *liver* and *portal system*. There is no precise indications showing, that the *arterial turrent* is primarily disturbed by its influence, neither that any *hematic changes* could positively be ascribed to it. *Circulatory sluggishness* is, on the other hand, characteristic, especially *capillary stagnation*, a condition always attending *senility*. So, the share of SULPHUR in the process of *sanguinification and distribution of the blood*, is quantitative rather than qualitative, and this notwithstanding its relation with the production of the *living plasma*. Bunge, with others, admits that the blood is only concerned in processes of oxidation in so far as *living cells* are suspended in it; that all oxidations in our body proceed exclusively in the active elements of the tissues—in the cells and the products of the metamorphosis, but not in the fluids surrounding them. This theory is accepted by every physiologist. As a circulatory remedy, SULPHUR, as we have stated above, has not only a potent influence over the *portal system*, with its suite of *congestive phenomena* and *venous stagnations*, but its *passive hyperemia* extends to the head, chest, spleen, female sexual organs and spine; and after *abdominal plethora*, its most characteristic action is undoubtedly *peripheric retardation*, that *capillary sluggishness* of the superficial venous flow, so well described by Canstatt under the name of *venosity*. This capillary sluggishness, seen so frequently in the hands of the aged, is the necessary result of changes in the walls of the vessels, hence the lesser resistance and elasticity of their coats, the sluggishness of the flow from lack of contraction of the walls, the reduction of the capillary system, the inaction or diminution of muscular activity, and finally, the effective influence of gravity over old age. When the organs destined to the elaboration of the blood remain in the normal state and the materials subservient to this process are also normal, and regular the excretions, if the assimilative powers are ample, the blood is then in appropriate conditions for nutrition and vital preservation. But, if the elaboration, excretion and separation of the materials to be eliminated, are imperfect, then the blood contains morbid elements, and loses its nutritive energy, or what is the same, it becomes a *pseudo-venous blood*, incapable of fulfilling its physiological mission. These vascular changes, at this period of involution, are progressive until the capillaries become obliterated and the circu-

latory field between the arterial and venous systems gradually disappears. It is at this advanced period of life that we notice, the extreme emaciation, the tenuity and dullness of the skin, the fine arborizations of the face, the varices, the retraction of the exterior forms, the unsteady gait, the lack of coloration under the influence of physical and moral influences, and the loss of memory; all indicating advancing dissolution, and comprising a syndrome well covered by SULPHUR.

How far these *congestive localizations* are related to *hepatic circulation*, is a question to-day discussed by competent authorities, and it seems that some new light has already been thrown upon the subject. The *portal system* does not constitute an anomaly in the circulatory stream, but should be considered as the type of most of the *derived circulations*, to which even the pulmonary circulation belongs. In the so-called *small circulation* by reason of its importance, the total mass of the *venous blood* is carried through the intermedium of an organ of impulsion, *the right heart*, to the lungs for *hematosis*, and returned to the *left heart* to enter the common circuit, where it resumes its course. In the *hepatic circulation*, the trunk of the *vena porta*, formed by the convergence of all the veins of the abdominal portion of the digestive apparatus, does not empty neither at once into the *inferior vena cava*, and does not cast off the blood it receives, until this blood has been diverted through the parenchyma of the liver, where we know it undergoes changes which are related to the complex function of this organ. The trunk of the *vena porta*, then, has the office of a heart. In man, as in the superior vertebrate, the course of the blood in the *vena porta* is effected by the *vis a tergo*, aided by divers influences, the chief ones being the abdominal inspiratory impulse and the thoracic aspiration. The *liver*, which is considered a single organ, is in reality, both from an anatomical and physiological point of view, a double viscus. There are two distinct *porta-hepatic circulations*, not only for the original venous radicles and the terminal hepatic ramifications, but even by the route they take in common through the trunk of the *vena porta*. The right and left lobes of the liver are the vestiges or relics of two hepatic glands, arising from the intestinal canal and which in early life, approaching each other, become fused, at their point of union, into a sole mass; mass which seems, indeed, to have been always single. In fact, the two glands remain distinct, *without*

vascular communication between them. Each lobe, right and left, can only be injected from the corresponding branch of the portal division. (*Glenard et Siraud*), and the same is the case with the biliary ducts (*Sereje*). We know also that the *right liver* is constituted by the right hepatic lobe and the lobe of Spiegel, while the *left liver* is formed by the left lobe and the quadratus.

I do not know if the interpositions or insertions of physiological facts, made in this analysis, will serve the purposes I intend them to cover, or if they will be to others as prolific of good results as they have been to me, but I certainly believe that to discuss *homœopathic symptomatology* on purely anatomical bases, is not only impractical, but often fruitless. The Philosophy of Homœopathy demands an accurate knowledge of disturbed organic function and alteration of tissue, as only so we can bring into correlation the phenomena of disease and of drug-action. When we understand the morbid state cured by a drug, we are in a better position to judge of the action of this drug, and better prepared to ascertain and value its curative powers. True enough, symptoms are the manifestations of disease, but with us symptoms are also the phenomena developed in the healthy human organism under the dynamic influence of drugs, and so it is that we have to deal with two different orders of phenomena, and the systematic scientific discussion of them necessarily calls for a previous knowledge of pathology and *Materia Medica*. It is not sufficient to match symptoms accurately, we must have a thorough comprehension of their origin and meaning, as I shall endeavor to show in the next chapter of my work.

Before closing, I wish to call attention to the active influence of SULPHUR upon the *lymphatic system*, and especially over the *absorbents* of the inclosed cavities of the body, where repeated observations have positively shown its powers to carry off accumulated effusion, to restore healthy secretion, and to bring respiration and other altered functions to their normal state.

And finally, one should never forget how SULPHUR affects the *nervous centres*, depresses the *sensorium*, and disturbs *thermogenesis*. In fact, one of its most characteristic features is to arrest *febrile paroxysms of variable type* and gradations, when *exertation and torpor* have reached a high degree of intensity, the organism is struggling with *toxemia*, and incapa-

ble of reacting under the stimulus of the best indicated remedy. It stands first in the rank of important remedies to combat *lack of reaction*, but it corresponds to those cases in which the enervated cells do not respond to the influence of any therapeutic agent, and in which the exhaustion of the vital forces has not yet reached the state of genuine collapse. It is in such cases where we see SULPHUR rouse most effectually the depressed or dormant energies of the system and prepare the soil for a reaction which itself may determine, or which other remedies may come to ultimate.

ECTOPIC PREGNANCY.

BY

N. F. LANE, M. D., PHILADELPHIA.

As you will perceive as you listen to this paper, it is not an exhaustive study of ectopic pregnancy. While I shall not go minutely into the history or symptomatology of the subject, I wish to call attention to certain quite constant phenomena occurring in the condition under consideration. Furthermore, I am not going to say anything new or unknown to those of us who are specializing along this line; but wish particularly to bring this subject to the attention of those who perhaps see few of these cases and who possibly may not be on the lookout for them. While the symptomatology of ectopic pregnancy is not constant any more than the physical signs are constant, still there are usually certain characteristic symptoms, which, taken together with the physical signs, should make the matter of diagnosis ordinarily quite clear.

I do not say this in a spirit of egotism, for no one realizes more than I that mistakes can be made by everyone; but the fact is these certain cardinal symptoms before alluded to are often overlooked and the case treated for something it is not.

I think probably the best way to bring the subject before you in an interesting manner will be to cite certain cases typical of certain stages or types of the disease in question.

One of the first cases that it was my privilege to see was a hospital ward patient operated by Dr. Smedley, at which I assisted.

The history of this case I do not know; but the operation itself is indelibly impressed upon my mind.

Upon opening the abdomen everything was found matted together by adhesions, the omentum covering in the pelvis. Upon attempting to separate the adhesions a foetus with cord attached rushed out of the pelvis followed by a terrific flow of blood. The adhesions were quickly separated and clamps applied to the broad ligaments as soon as could be done without injury to the intestines. This patient had lost a large quantity of blood before the operation and this, together with the bleeding during the operation, practically exsanguined her.

If my recollection serves me rightly this woman died. This was before the days when it was common to give infusions or she probably would have recovered.

I mention Dr. Smedley's name because he was known to most of you and to show the gravity of this class of cases even in the hands of operators of exceptional ability.

The following case shows what can be done in extreme collapse from free hæmorrhage into the abdominal cavity; and also the action of infusion of normal salt solution into the veins.

Was called in the evening by Dr. H., who said he thought he had a case of ruptured ectopic pregnancy, that the patient was in a state of collapse and needed immediate attention.

This was probably the most spectacular operation I ever performed; not from the fact of an appreciative audience; but from the surroundings and the appliances with which we had to work. Arriving at the house no time was lost in getting the patient ready for operation; an oil lamp was hung from the ceiling; she was prepared the best we could, was anesthetized and placed upon the kitchen table. The surroundings and aseptic conditions were not of the best; but the condition of the patient permitted of no delay. The abdomen was full of fluid blood; the mass which was upon the right side was clamped, ligated and removed, the belly washed out and the wound closed.

The patient should have been infused as soon as the bleeding point was secured; but there was no one present who felt competent to do it. As she was removed from the table to the bed the anesthetist reported the cessation of the pulse and such seemed to be the case; but as I had ordered the nurse to prepare the salt solution I proceeded to infuse, and to our

surprise and delight the pulse gradually returned and, to make the story short, she made an uneventful recovery, with the exception of an infection at the lower angle of the wound, which was not at all surprising. This infection was the indirect cause of further interesting developments in this case. One year later she came to the Hahnemann Hospital to have the slight hernia, the result of the infection, repaired. She had some vague symptoms referable to the left pelvis, nothing very definite; but enough to make me somewhat suspicious and I requested the operator upon duty at that time, to open the peritoneum and examine that side. Rather to our surprise another tubal pregnancy was revealed. The case just recited, of consecutive tubal pregnancy, reminds me of an interesting occurrence in the clinic of Dr. John E. James this spring, where he found, upon opening the abdomen, the tubal sac and from it came two cords which, when drawn upon, revealed a foetus upon the end of each. This is the first and only twin ectopic it has been my fortune to see.

These cases that I have just mentioned where there are symptoms of collapse in a woman who considers herself two or three months pregnant, are usually easy from a diagnostic point of view and I think there are fewer mistakes made than in the variety of cases that are at first not so alarming. The following two cases that I saw recently within a period of three weeks will illustrate the points I wish to emphasize:

On June 24th, was called by Dr. T. to see a case of supposed incomplete abortion. The abortion was thought to have taken place June 17th; but the patient, still having pain and bleeding after the lapse of nearly a week, it was thought best to curette the uterus.

Upon making an examination, as is my custom after the patient was anesthetized and before using the curette, I found a mass in the right side, which was tender to pressure even under ether (not complete narcosis), and at once suspecting the trouble to be ectopic pregnancy, I asked a few more questions in regard to the history of the case (which I should have done before) and declined to do a curettage, advising instead, sending the patient to the hospital for operation. This they did, and at the operation performed the next day we found an unruptured tubal pregnancy with some blood in the abdominal cavity which had leaked out through the end of a practically normal tube, the tumor being situated near the uterine end.

Since the patient went home I have received from her a very complete history of the case and will recite the important points.

Last regular menstruation occurred March 23d. May 7th (two weeks over time) menstrual flow started and continued for five weeks. This flow was peculiar from the fact that it would be very free for a few days, then almost cease, then flow again and so on, never stopping entirely. After this the flow ceased for two days; but on June 17th it came on suddenly, quite free and with some pieces or shreds. The bleeding then ceased and it was at this time that the miscarriage was supposed to have occurred. She suffered her first pains while out riding; they were very severe and would shoot up the rectum. This was the latter part of May, or about eight weeks from the date of pregnancy. These pains recurred about a week later and the bowels were moved with difficulty and accompanied with pain.

From this time until I saw her she suffered from these pains every few days; they would get better after lying down and she was never confined to her bed for any length of time.

From the time of the supposed miscarriage, June 17th, when the flow ceased so suddenly, she stayed in bed and felt pretty well, and the trouble was supposed to be over; but on June 24th she was taken with severe pains, said she became numb all over and thought she was going to die.

The doctor was sent for and said there was probably something still in the uterus and requested a consultation. As a matter of fact he recognized that things were not going in an orthodox fashion for a miscarriage and wanted advice. The result of the examination and operation I have outlined above.

The second case, while not exactly like the first, is in a general way similar. Was asked to see another case of supposed threatened abortion by Dr. B. on the afternoon of July 13th. He had made a diagnosis of retroversion and expected the patient to miscarry unless the uterus was replaced, which he could not accomplish without more force than he felt justified in using.

The examination of this woman revealed what all of you who do much of this kind of work would recognize as a pelvis full of blood clots and upon further careful examination I found the uterus pushed to the left, forward and upward and slightly enlarged. After further inquiry into the history and

symptoms and consultation with the doctor we decided we had a case of ruptured tubal pregnancy and advised the hospital and operation at once. This was agreed to and the operation performed that night, as we were afraid to postpone it longer, owing to the fact that the pains continued even when the patient was quiet in bed.

In this instance I made the incision a little longer than usual owing to the fact that we sometimes have to work quickly, and I do not like to be hampered trying to work through a small opening.

The pelvis was full of clots and the right tube was distended by a mass that was being forced out of the fimbriated extremity, in other words a tubal abortion. This patient made an uneventful recovery. The following is the history given by the patient :

She menstruated last April 20th, missed May and June, on July 5th she had a sudden profuse flow of blood from the vagina and on the eighth passed membranes and clots and some bleeding continued until the operation on the thirteenth.

The first severe pain occurred on June 26th, and lasted one or two hours. She had four more attacks of this pain at intervals of two or three days and became very sore through the pelvis which was aggravated by exercise.

Now you may say, why take up our time reporting such ordinary, commonplace events? and I answer, that is exactly why I report them.

Those of us who see many of these cases are on the watch for them for we know they are not uncommon; yet a general medical man may go for years without seeing one, and so overlook the fact that these conditions are so numerous. There may be little danger of a wrong diagnosis in the class of cases where there is collapse with symptoms of internal hæmorrhage, as everyone knows something must be done immediately; but the more ordinary cases like the last two mentioned are very likely to be mistaken for abortions, and, of course, the sooner they are recognized as ectopic the better.

Superficially considering the symptoms of the last two cases, you will no doubt be struck by the fact that they could and probably would, be taken for abortions as the patient supposes she is pregnant, there is pain, crampy in character, and there is discharge of blood and membranes, all occurring at a time when we expect abortions to take place, the second or third month.

Inquiring carefully into the histories, however, we find certain *irregular* symptoms; the abortion does *not* proceed in an orderly manner, we see no fœtus, no cord or placenta, only clots and membranes, the flow is irregular, the pains irregular, coming and going perhaps hours or days apart, in fact, everything is usually totally unlike an ordinary abortion.

I have noticed lately that these cases usually have sudden profuse gushes of blood and have begun to look upon this symptom with suspicion. As far as symptomatology goes the general medical man is upon an equal footing with the specialist; but when we come to the real test, the physical examination, the general man is often at a disadvantage. Here we find a soft, fluctuating, tender mass usually on the side corresponding to the most pain; if rupture has occurred the pelvis may be full of clotted blood, giving a boggy feeling, and I have sometimes felt a sort of crepitus upon pressure against the mass. If there is free hæmorrhage taking place the examination may be negative on account of distention and tenderness; but here the symptom of shock will come to our aid. In case of rupture with slow bleeding with clotting, the patient often becomes very anemic, which is a symptom of importance in making a diagnosis.

As mentioned before, all this looks very easy on paper; but in actual practice (while ordinarily there is no difficulty in making a diagnosis) there are times when it taxes our skill to the utmost and even then the proof may be wanting until the abdomen is opened.

The late Dr. Dudley practiced medicine a great many more years than it will be the fortune of many of us to do before he had a case of twins, and I do not know that he ever did have a case; but he was wont to remark that he did not believe there was such a thing as twins.

This is a frame of mind that we are prone to get into regarding ectopic pregnancy; but the fact remains that there is such a thing as ectopic pregnancy, that it is not uncommon and that although some may have been practicing medicine a number of years and failed to have had a case, still he may see two or three cases in the next two or three months. If this paper and the discussion shall be the means of putting some upon their guard and enable them to recognize the condition when encountered, the object of these wandering remarks will be accomplished.

EDITORIAL

THE UNIFICATION OF THE MEDICAL PROFESSION AS PROPOSED BY THE PHILADELPHIA COUNTY MEDICAL SOCIETY. (ALLOPATHIC.)

At a recent meeting of the Philadelphia County Medical Society (Allopathic) a resolution was adopted which provides that any physician having the proper educational and legal qualifications can become a member of the Society providing he was willing to agree "not to accept any sectarian designation or base his practice on any exclusive dogma or system."

Our allopathic brethren have gone to great trouble to give the passage of this resolution as much publicity as possible, and in the press and in public utterance have pointed with pride and self-satisfaction to this example of their liberality and broadmindedness. As a result of this self-adulation the public have been impressed with the sincerity of the actors of this comedy and they have received not a little praise for their apparent change of policy from persecution to friendliness. The incident reminds us very much of the story that is told of a former Philadelphian who had an exaggerated opinion of his ability as a public speaker. On one occasion he met a friend on the street who said to him, with a tone of conviction in his voice, "I made a fine speech at the Academy last night, one of the best I have ever made in my life." A few days later the gentleman met the orator again and said to him, "Mr. S— I heard you made a fine speech at the Academy a few days ago." "Yes! Yes!" replied Mr. S—, "who told you?" "Why," replied the gentleman, "you told me so yourself, don't you remember?"

But it behooves us, as champions of the truths of homœopathy, to consider seriously this action on the part of the old school for only the most superficial can believe the statements issued in the public press to be the real motives for this apparent change in the policy of our former maligners and persecutors.

Such a move was only made after thorough consideration

and we are well enough acquainted with the astuteness of the diplomatic leaders of the allopathic school in this City to know that an urgent and important motive lies behind their action.

We believe that this action may have arisen from one of four motives:

1. Repentance for the intolerance and persecution of the past and a growing spirit of liberality

2. As a means of legalizing consultations with homœopathic physicians, thereby adding not inconsiderably to the incomes of a number of old school physicians.

3. A pretence of liberality which will enable the dominant school to drive the homœopathic profession out of existence as an organized body.

4. As a forerunner of the legislative fight one year hence, when another attempt will be made to pass a "one board bill."

Before considering these motives, let us first study the past and present situations. When Hahnemann first promulgated his therapeutic doctrines, the idea that he would thereby separate himself from association with his colleagues was far removed from his thoughts or expectations. For a number of years, he published his communications in the medical journals of his day. It was only when he had secured a number of adherents and his doctrines had become to be regarded as "dangerous" that he was ostracized, and he and his followers driven from the medical fold. Not satisfied with a professional ostracism, his enemies permitted their opposition to take the form of organized persecution, which continued over a period of half a century. During this long period, all recruits to the ranks of homœopathic physicians came from old school graduates. Finally, in 1848, a homœopathic medical college was started in Philadelphia. Four years previously, the homœopathic profession felt the necessity of a national organization, and the American Institute of Homœopathy was founded.

From these small beginnings, our organization grew, until at the present time, we have well conducted colleges in every section of the United States. Hospitals have been built and are liberally supported by the charitable of the laity. Homœopathic medical societies, State, County and local are numerous. The public has generously patronized our physicians; indeed our patrons include more than our proportion of the cultured and wealthy of the land.

Such a fine organization could not help exciting the envy

and avarice of our opponents. Indeed, they have until within a very recent period not hesitated to express themselves accordingly in a manner that must lead us to accord them the virtues of candor and honesty, though we condemn their illiberality.

Opposition of this kind has failed. In private, many old school physicians have not hesitated to say that it actually helped our cause. Following the dictates of their judgment, they have been examples of personal liberality irrespective of the code of ethics of their school.

A number of years ago, it was the custom of the old school to speak of irregular physicians as those who took no cognizance of the principles of pathology, chemistry, etiology, diagnosis, and allied sciences in the treatment of the sick. For many years this was the test of orthodoxy. With the advances made in medical knowledge, it was noted that such a standard was in the highest degree absurd, and a new shibboleth arose. This stated in general terms that no physician could be regarded as regular who based his treatment on any exclusive system of therapeutics. Thus did they raise the cry of sectarianism against us, forgetting that the designation was theirs, not ours.

The general recognition of homœopathy and its institutions made it necessary that something be done to stifle its progress, for ostracism had failed. The new standard of orthodoxy would not bear close investigation, for while we utilized the law of similars in our treatment of the sick, we did not ignore the value of hygiene, etiology, nursing, surgery, pathology, palliation, etc. In this, we were in accordance with the teachings of Hahnemann. But we did not claim that these measures were within the homœopathic law; nor did Hahnemann so hold.

With this historical prelude let us consider the question of motive.

Is the Philadelphia County Medical Society actuated by a spirit of liberality? We believe not. We say this because we have personal knowledge of numerous discourteous and ungentlemanly offences committed against homœopathic physicians within the past year by many of the men who voted for the resolution. Philadelphia has always been the central point of conservatism in the old school medical profession. Is it possible that a change of heart has come in a day? Can any one answer else than "No!"

2. Are they after the elusive dollar? To some extent "Yes." While there are many old school specialists and consultants who have not hesitated to hold professional affiliation with homœopaths in the consultation room, there are many more who have feared that their standing with their fellows would be hazarded and so have held aloof. The County Society resolution serves to regularize such homœopaths as are pleased to accept it, and make them subsidiary to a class of consultants who have heretofore held them in contempt. So far as we know, those physicians who have not hesitated to consult with homœopaths have never been called to book by their more stringent and more cowardly brethren.

Are we talking with full knowledge of facts? We are! We have personal knowledge of voters for the resolution having turned down liberal fees lest they impair their orthodox standing with their fellows. When were they sincere? When during the past year they refused consultation with homœopaths, thereby casting upon them unnecessary insults, or now, when they prepare the "love feast" (?)?

We cannot answer that question. But they will not capture the dollar unless homœopaths enter the inner circle of medical sanctity in sufficient numbers to make the venture profitable, and this, under the provisions of the resolution we believe to be unlikely.

Is the resolution a pretence of liberality designed to drive the homœopathic school as an organization out of existence? YES! We answer thus positively, because the resolution does not provide for any different standard of orthodoxy than that which has existed for many years past. As it is now, so was it in times by-gone. Persecution, prosecution, abuse, falsifying failed, and failed utterly to exterminate. So now, say they, let us entice our adversary within our domicile, and we will dispose of him to our own advantage. Think of such a violation of the principles of hospitality. Where is the conscience of the old time gentleman who had the good taste to be an honest enemy?

If the Philadelphia Medical Society is willing to admit to its membership orthopedic surgeons, electro-therapeutists, X-rayists and divers other manners of practitioners who designate themselves by special names and confine their practice to exclusive systems of treatment, why should they not also recognize homœopathists as specialists in a particular line of

therapeutics? We trade on a name say they, that we may announce our therapeutic principle to the public and so catch the dollar. But so does the electro-therapeutist who confines his system of treatment to the administration of a single therapeutic measure; and so does the X-rayist, the hydropath, etc. Why should a homœopathic practitioner alone of all the specialists in medicine be required to renounce his title, his brother practitioners and give up all affiliation with any homœopathic institution before he can become a member of the Philadelphia County Medical Society? Had there been a sincere desire on the part of our old school brethren to draw the members of the two schools into close and honorable affiliation, they should have communicated this desire to the official organization of the homœopathic school in this city—the Homœopathic Medical Society of the County of Philadelphia—and should have conferred with them as to the desirability of such affiliation and upon what grounds it would have been mutually acceptable. Such a course would have been more dignified and more honorable than endeavoring to inveigle into their ranks a few stragglers who are willing to sell their birthright for a mess of pottage.

Is the resolution a forerunner of the legislative fight for a one board bill to be inaugurated one year hence? *Yes! Undoubtedly so.* Coming as this resolution does so closely after the defeat of the Bowman bill, and the success of the allopathic school in New York State in securing the passage of a one board bill for that Commonwealth, we cannot feel otherwise. That the allopathic profession of Pennsylvania feels sore over its recent defeat, we know by reason of caustic remarks let fall by the liberal (?) gentlemen who voted for the resolution. The leopard has not changed his spots. A Biblical injunction says he cannot do so.

The reader may feel that we have overestimated the feelings of bigotry that have permeated the history of the old school of the past. We think we have not. Let us quote Dr. St. John Roosa and the former editor of the *North American Journal of Homœopathy*. (Geo. M. Dillow.)

“In a recent address delivered by Dr. St. John Roosa before the New York Academy of Medicine, there is to be found a singularly naive confession of the fault that lies at the door of the old school in dismembering the medical profession. After going back to the halcyon days of 1827 when the State

and County Societies regulated the standing of the profession in the State, when the State Medical Society was a part of the legal organization that made up the State, 'when the medical profession kept step with other professions in general influence' and when 'not content with its high position as recognized by the political power of the commonwealth, the medical profession undertook to repress opinion and practice as to the treatment of disease' he said:

"These new heretics are not like the Thomsonians uneducated men, but educated like themselves, and in good and regular standing in the county societies and under the protection of the law.

'In 1842, in the peaceful fields of Orange County, the fight waxed so warm that the County Society forbade a homœopathic physician from practising within their jurisdiction. This fatal step caused the persecuted sect to appeal to the Legislature, which not only deprived the county societies from preventing those to whom they objected from practicing, but also allowed anybody to practice who chose to call himself a doctor.'

'Heresy hunting is sometimes successful, but when the medical profession of the State of New York undertook the work of exterminating the followers of Hahnemann, they probably had little idea of what was before them. With the fervor of Puritans, and the chivalry of cavaliers, our medical ancestors proceeded to cast out men educated in the same medical schools with themselves; men whose technical qualifications whatever future generations may think of their judgment and common sense, was obtained at the same source and was presumably of the same quality as their own. It is no wonder that they were driven out. But it was an unsuccessful way of dealing with them, unless it was desired to give them free scope and extended power.'

Dr. Dillow proceeds to comment:

"Such an unreserved recognition of ancestral folly so rarely met with among the orator's colleagues is refreshing, the candor of his description requires no exception beyond a little doubt of the chivalry of those cavaliers. However, the prejudices of Dr. Roosa's audience warranted some rhetorical burning of Joss sticks in worship of the shades of the heresy hunters, the would-be exterminators of the followers of Hahnemann. But no good will come from dispute over ancestral

chivalry. It is enough to call attention to the common grounds stretching between the orator and his fore-fathers in the profession. They believed that Hahnemann was a pretender and his system of practice fantastical; so does Dr. Roosa. They believed in extermination by one method; he believes in another, now that their course has proved of no avail."

Reader! The situation in Pennsylvania to-day is that of New York in 1888. The fight begun in that year culminated in 1907 by the passage of the single board bill, which unfortunately was backed by members of our school, some of them idealists, some complaisant, and others, positively selfish. Without their assistance, clandestine and otherwise, the bill would have been doomed to failure.

Fortunately for the cause of homœopathy its adherents in Philadelphia have not been deceived by the sop that has been thrown to them. At a meeting of the Homœopathic Medical Society of the County of Philadelphia on the evening of October 24th, the resolution adopted by the Philadelphia Medical Society was discussed freely. The sentiment of the meeting was unanimous that no practitioner of homœopathy could sign the application proposed by the Philadelphia County Medical Society without compromising his own dignity and betraying the cause of homœopathy. It is the duty of every homœopathic practitioner to see to it that his patients and associates clearly understand the true motives of the old school in adopting this resolution, and to impress upon the public the fact that while the homœopathic school welcomes all attempts at honorable unification of the medical profession they are unalterably opposed to a union which limits their application of therapeutic methods and to an affiliation which would obliterate the truths of homœopathy.

CONCERNING INTERNAL VACCINATION.

The question of internal vaccination is one that is raised from time to time by those who are opposed to the usual method of vaccination by scarification. This manner of conferring immunity against small-pox has always had many advocates in the homœopathic school and from time to time efforts have been made to secure the official endorsement of this method by the American Institute of Homœopathy. At the last meeting

of the Institute at Norfolk, the advocates of internal vaccination were successful in getting the Bureau of Sanitary Science to endorse a resolution to the effect that any method of vaccination which received the sanction of the American Institute of Homœopathy should be considered as fulfilling all the requirements of the laws relating to this subject. This resolution was the entering wedge for the resolution endorsing the internal administration of vaccinum as a prophylactic against small-pox. The Institute was wise enough to vote down the proposed resolution and the matter was dropped.

The folly of asking the Institute to endorse such a proposition lies in the fact that the status of internal vaccination has not yet been determined and it is most unreasonable to ask the representative national organization of the homœopathic school to give its sanction to a measure which is yet in its experimental stage. There may be some efficacy in this method of conferring immunity against variola but let us consider well the clinical results of this method and await the verdict of time and extended experience before we give this method the official endorsement of the homœopathic profession.

The following letter, relating an experience with this method, is worthy of thoughtful consideration as it represents the observation of an accurate and scientific observer on himself. From a personal acquaintance with the author we are able to state that he is an enthusiastic and conscientious advocate of the principles of homœopathy and an observer of more than usual ability. While we would not pretend that this one experience completely overthrows the whole theory of internal vaccination, nevertheless the facts in this case are so well established that it certainly raises a reasonable question as to whether the method has any positive value in conferring immunity against variola.

EDITOR OF THE HAHNEMANNIAN MONTHLY,

DEAR SIR:

In your July issue you publish an extract of an article by A. H. Slarcke (*The Medical Form*), setting forth the efficacy of "Internal vaccination." I have read many such beautiful accounts of the theory of said "Internal vaccination" and as I am an enthusiastic believer in the principles of Homœopathy I desire to testify against the fallacy that has found its way into our literature on this subject.

We have just been through an epidemic of small-pox, which

began in February and lasted till early June. I treated the cases, acted as quarantine agent, and fumigated many families who had been stricken with this disease. I had always prided myself on having a natural immunity through a vigorous and healthy organism; in fact had never been sick since childhood. I also had instilled into me, through many sources, the prejudice against vaccination by scarification, if you please to call it so, and therefore procured vaccinum 30x and took doses daily after each exposure. When the stock became exhausted I ordered more but the 6x was supplied with the information that B. & T. were out of the potency desired. This I took every 2 to 4 hours for several days after the exposures and prescribed it to all who applied for advice as to any means of prophylaxis other than the scarification method.

All went well until one day in April I took a long drive without the necessary wraps for protection from the weather and although I had been taking vaccinum, and continued so to do during the next four days, the eruption appeared in characteristic form and I was confined in the "pest house" twelve days. Many who had not been taking vaccinum were released as soon or sooner than myself, and while I was not very sick at any time, there were other persons in the hospital with milder cases who had not been vaccinated by either internal nor external methods.

It is most important that we be honest with ourselves; this repeating in parrot fashion the symptoms and cures accorded to the potentised drugs without actual tests is unjust to the beginner in medicine, if not to those who should have investigated for themselves. In the first place there are but 50 per cent. of those exposed who take small-pox, even though they have not been "protected," and when the enthusiast gives the "Internal vaccine" to his patients who are not stricken with the disease he casts bouquets at himself and Homœopathy without knowing that any good has come from the administration of the drug. This same thing will apply to the boasts of belladonna as a prophylactic against scarlet fever, I have followed that fallacy in the past and find that when the vigor of the individual is below normal neither vaccinum nor belladonna will give the desired immunity. On the contrary, the history of many years has shown that vaccination by scarification does give the greatest immunity, and we are applying the homœopathic law of cure when making use of vaccination by the external as well as by the internal method.

ALFRED M. MOORE, M. D.,
Brighton, Colorado.

GLEANINGS

X-RAYS ACCIDENTS. Ignorance is the greatest enemy of man. It leads to so many assumptions or suppositions, that oftentimes one wonders if dealing with science and facts is anything different as dealing with theories and hypothesis. To blame the X-rays for all the accidents which have followed their application show nothing but ignorance—perhaps not ignorance of electric energy in general, but of the source of these accidents. Medical electricity possesses the means to measure the dose in X-ray treatment, and in the improper application of these means is where the danger lies. Those who handle the X-rays apparatus, must possess a thorough knowledge of the production, penetration power, and chemical and physical effects of these rays. They must be conversant with the properties of the Cathode rays, the action of the focus tube, the intensity of illumination of the different zones of the irradiated area, the method of illuminating objects in the irradiated area, the mode of propagation, velocity and wave length of the X-ray vibrations, the ionisations of gases, the penetration of the ions through the integuments, &c., &c.; but probably the most essential knowledge is the measurement of the dose.

Holzknacht has designed an apparatus which he terms a chromoradiometer, to measure the dose in X-ray treatment. The physiological or therapeutic action of the X-rays is proportional to the quantity absorbed. Highly penetrating rays which pass through the body without being absorbed are almost without therapeutic effect. Goldstein found that the color of certain salts is changed by exposure to the cathode rays. Holzknacht observed that the X-rays produce a similar effect, and that the amount of change is proportional to the quantity of X-rays absorbed. Hence he makes use of the color change of one of these salts to indicate the quantity of rays absorbed. X-rays, Cathode rays, and radioactive bodies have a similar effect on these salts. A solution of chemically pure chloride of sodium is colored yellow by the rays. The color effect is the same if it is mixed with pure sodium sulphate, though the latter salt alone is not colored by the rays. If the two salts are fused together, they will on cooling, exhibit a pinkish-violet color, and the solution of this mixture is stable.

The action of the X-rays on these salts serves to explain the principle of Holzknacht's chromoradiometer, although the actual composition of the salt he uses is kept secret. The salt is enclosed in small capsules mounted on a card. A graduated scale formed by 12 such capsules serves as a standard with which to compare the degree of coloration. Holzknacht's unit of measurement is an arbitrary one and is designated by the letter H. A new capsule is required for each case, but the same capsule may be used several times for one patient since if care is taken to exclude light it will preserve its color from one sitting to the next. This method of measurement promises to be a very valuable one, when the unit has

been clearly defined, and the dose suitable for each case has been determined. It has, however, one drawback, the darkening of the reagent continues for some time after the irradiation has ceased.

In France Sabouraud and Noire's discs are generally used for measuring the quantity of radiation. They consist of barium platinocyanide paper similar to that used for the fluorescent screen. The disc is placed 8 cm. from the anticathode, the distance of the patient being 15 cm. Platinocyanide of barium grows darker under the influence of the X-rays, but rapidly regains its original color on exposure to daylight. The standard scale used with this instrument gives three tints: 1, The color of the unirradiated platinocyanide disc; 2, the color of a disc which has absorbed a quantity of rays corresponding to 4 H in Holtzknecht's units. This is the dose required to give the first degree of radiodermic reaction; 3, the color of a disc which has absorbed $5\frac{1}{2}$ H, the maximum dose permissible without injury to the skin.—*Guilleminot*.

If we may rely on the very complete bibliography given by Belot, it would appear that the first experiments for the radio-therapeutic treatment of cancer were made by Despeignes, of Lyon, in 1896, some three or four years before the appearance of the earliest reports in foreign journals. We must refer the reader to Belot's monograph for further details on this subject (Belot Radiotherapy in Skin Diseases. Redman, 1905). It is only quite recently, in 1904, that observations based on precise methods of measurement have appeared, with records of the quality of the rays defined in degrees on Benoist's radio-chromometric scale, and the quantity in Holtzknecht units. In France the labors of Brocq, Bissérié, Belot, Tuffier, Haret and Desfosses and Bécère have furnished us with accurate data for intervention. Previous observations were not without value, although lacking in the all-important data of measurement. When one is in the habit of using the same installation and the similar focus tubes, it may be possible to give approximately the same exposure without the use of any measuring instrument, simply by noticing the time of exposure, and the appearance of the focus tube. Practice and daily routine may enable an operator to repeat a given dose with some approach to exactitude, but even then the "personal equation" of the observer comes into question. The great advantage of measurement is that it renders possible the comparison of the observations of different operators. In consequence of the adoption of Benoist's and Holtzknecht's instruments the rules of procedure are more or less established, and the technique has been formulated and may be understood and repeated by practitioners all over the world.—*Guilleminot*.

THE TREATMENT OF HAY FEVER. The search for the specific cure for hay fever still continues, but the attainment of this goal seems to be as far distant as ever. In an excellent article on this subject in the July 13th issue of the *Journal of the Amer. Med. Association*, Curtis states the following conclusions:

1. Hay fever is a disorder amenable to no specific treatment.
2. The number of cases of hyperesthetic rhinitis from other causes than ragweed and other pollens is about one-third of the total number.
3. About one-third of the cases supposed to be due to pollen reaction

may be relieved by constitutional and surgical methods of treatment. Predisposition to attack in these cases being due to definite causes, the author suggests the theory that induced enervation of the sympathetic is an important etiologic factor.

4. Primary intoxications may take place from pollen toxins in cases in which the sympathetic system apparently is not previously enervated. These cases, theoretically, should react to antitoxin treatment.

5. The consensus of opinion to-day is against the claims made for pollantin, though observers who have been instructed personally by Professor Dunbar indorse unqualifiedly the great benefit to be derived from the treatment.

6. Medically the suprarenal capsule products hold the first place to-day in the treatment of hyperesthetic rhinitis.

7. The constitutional treatment as an adjunct to any local application is of supreme importance.

8. The best of all treatments yet found is the climatic, with previous attention to nasal conditions.

CLINICAL OBSERVATIONS AND EXPERIENCES IN THE TREATMENT OF LOBAR PNEUMONIA. Affleck in the *Scottish Medical and Surgical Journal* for April, 1907, points out that dyspnea in pneumonia is connected with a variety of causes—a toxic action upon the respiratory center, the pain, the extent of lung involved, the condition of the other lung, and in a very special manner the state of the heart. In its most serious form it is apt to occur far on in the case, when cyanosis makes its appearance. If accompanied with coarse, moist rales, with little cough and no expectoration, it is certainly of evil omen, and treatment is but too often of little avail. Diffusible stimuli, such as compound spirit of ether with aromatic spirit of ammonia, may give some relief. It is in such circumstances that oxygen inhalation is often resorted to; and this remedy, when first introduced for this purpose, seemed to give promise of great usefulness. More extended experience, however, has apparently lessened confidence in its efficacy, and it cannot be said to occupy the high place in the therapeutics of pneumonia that it once did. The author's experience of its use has not been small, and upon the whole the results have been disappointing, notwithstanding that in some notable instances it acted beneficially. It is in consequence of such occasional successes that one feels constrained to give it a trial in the more serious cases of pneumonia. It is never to be forgotten that an ample supply and renewal of fresh air in the room is most essential, and is best secured by an open window.

Treatment directed to the heart must ever hold a prominent place. Such treatment is generally reserved for that period in the progress of a case in which there is a lowering of blood-pressure and a pulse which shows evidences of feebleness, micotism, or irregularity. Digitalis, strophanthus, strychnine, and alcohol are the remedies usually employed to combat this condition. The author has found the two most potent to be digitalis and strychnine. The former may be given pretty freely if the effect is watched, but it is doubtful whether the large doses (a drachm of the tincture) some have recommended are really of much service. Strychnine is most efficacious when administered hypodermically. It is a question whether the tendency is not to the too frequent repetition of these strong drugs, par-

ticularly when the case is assuming serious character, and whether more harm may not be produced than good.

The question of alcohol in pneumonia has been a much debated one. There can be little doubt that the same value does not now attach to its use as a heart supporter in this disease as it once did. Indeed, many now believe that it is unnecessary in most cases, and that even where it appears to be indicated, as in the case of the aged and feeble, its employment in any but small amount may be hurtful. While far from denying it a place in the therapeutics of pneumonia, the author holds to the view now expressed, and he believes it to be inferior in value to strychnine for the heart. This latter agent he has sometimes thought might often be administered earlier in the course of the disease with advantage, and he has occasionally begun its use whenever the case came under observation, with good effect.

The treatment of insomnia is often attended with difficulty and disappointment, a remedy which succeeded in one case, hopelessly failing in another. Paraldehyde in full doses given by the mouth or rectum succeeds with a good many, and in alcoholic cases is one of the best hypnotics. Chloral along with digitalis he has known to answer particularly well. Sulphonal, trional, and veronal occasionally succeed, but are less trustworthy, and the same may be said of the bromides and also of alcohol. Opium in any form or any dose he rather shrinks from administering in the advancing or advanced stage of a pneumonia, having seen on more than one occasion reason to regret its having been used.

Delirium, if of moderate amount, can often be controlled by some of those remedies suitable for insomnia. But in the more active forms other measures have to be resorted to. The application of an ice-bag to the head, when tolerated, may be of service. In cases showing great excitement the author has used hyoscine with success so far as calming the patient was concerned; but, as already stated, such cases are very often fatal.

The pyrexia of pneumonia does not often call for special treatment. When the temperature runs high much comfort may be afforded by sponging such parts of the body as can be readily gained access to with tepid or cold water. The temperature may be lowered a little in this way; and the procedure is by no means unpleasant to the feverish patient. Antipyretic drugs are not advisable for their heart-depressing tendency. Even quinine may produce a considerable amount of cardiac disturbance.—*Therap. Gazette*, September, 1907.

VACCINE THERAPY.—Wright (*Lancet*) in the conclusion of his lecture on the principles of vaccine therapy, summarizes his personal experience as to practical results, as follows: 1. Type of infection where a single species of micro-organism has penetrated into the interior of the body and has established itself in one or more foci without causing any considerable destruction of tissue or constitutional disturbance. Typical examples are where tubercle bacilli have lodged in lymphatic glands and where staphylococci have penetrated into the subcutaneous tissues and yet causing only suppurative (furuncular) as distinguished from necrotic (carbuncular) changes. Here his results have been all but uniformly successful. In furunculosis cure results in a few days, in tuberculous adenitis in from five weeks to eighteen months. The same is true of tuberculous infection of

the testicles, kidney and urinary passages, and also, to a modified degree, in early cases of pulmonary tuberculosis. 2. Ulcerative type of infection, met with in connection with the breaking down of nodules in the deeper tissues and the penetration of superficial infections. This is as tractable to vaccine therapy as type one, except where secondary infections have supervened. If anything, an open ulcer is more tractable than a focus of infection in the deeper tissues which has not found vent or which has not penetrated to the lymph bearing stratum below. 3. Infections of the skin. These fall into two categories. Dry, scaly, and nonvascular infections, such as "lupus psoriasis," are extremely intractable to vaccine therapy. But where the skin is vascular, or the microbes penetrate deeply, as in staphylococcal sycosis, excellent results are obtained. 4. Infections of mucous membranes and of the glands and ducts which stand in connection with mucous membranes. These are readily influenced by vaccine therapy, good results having been obtained in infections of the middle ear, the antrum, the nasal sinuses, dental alveoli, and salivary glands, also in coli infections of the intestine and gall bladder. But it must be remembered that most mucous membranes harbor on their surface many forms of micro-organisms, and as vaccine therapy only does away with one particular form, some other class may multiply and cause trouble. In bladder infections we generally have also to deal with a bacteruria. 5. Infections of sinuses. Very successful results are obtained in these cases when the inoculation of bacterial vaccines is combined with a course of treatment by local lymphagogues. 6. Mixed infections. Practically every case of suppurating lupus is complicated by staphylococcus infection, and most of them also by a streptococcus infection. And what holds true of lupus holds true, *mutatis mutandis*, of every tuberculous affection to which microbes can find access. In these instances of mixed infection, two cases must be considered: (a) Case where vaccine therapy is directed to the destruction of only one of the infecting microbes. In a few instances where furunculosis was due to both streptococci and staphylococci, the extinction of one organism under vaccine therapy has indirectly led to the extinction of the other. But such an event is extremely exceptional, and all other organisms except the one specially aimed at are quite unaffected. Indeed the multiplication of competing microbes may be thereby favored. (b) Case where vaccine therapy is directed to the destruction of all the infecting microbes. Where in cases of mixed infection measures are taken to immunize the patient against each of the different infections, very successful results have been obtained—for instance, in lupus, cystitis, and endometritis. 7. Generalized infections. In six cases of Malta fever, distinct clinical improvement occurred in each case in association with an increased development of antibacterial substances in the blood. In two cases of streptococcal septicæmia a complete cure was achieved. In a third case (one of malignant endocarditis) vaccine therapy brought the temperature, which had been elevated for months, down to normal, the patient dying later of cardiac complications. In three other cases of streptococcal endocarditis the patients succumbed, having in each case failed to make any immunizing response to the inoculations.—*Charlotte Med. Journal.*

ON DOCTORS' SONS.—Doctors' sons pretty generally make good doctors; that is, if they decide to study medicine and be doctors at all, they succeed.

When you hear a physician say that the practice of medicine is a dog's life, and that if he had it to do over again he would never study medicine, that patients are ungrateful and give him little thanks or pay, you may be pretty sure that his son will not study medicine; and if perchance he should, he is terribly handicapped by a lot of bad medical traditions. The unsuccessful doctor does not let his son study medicine. The doctor's son who does study medicine is quite invariably the son of the man who was successful enough to find joy in his work, and who could wish his son nothing better than to enter into the calling which had meant so much to him. And the boy saw in his father's life something that excited his admiration to emulate and covet. As a matter of fact and observation the son of the really successful doctor commonly does study medicine; and I can name a number of such men who attained to even greater success than their fathers.

However, the decision as to whether a man is successful or not does not rest with you or me.—the decision is with him—he is the only one who knows.

That the doctor's son takes his cue from his father, and that the father should be careful of what he teaches his son, even inadvertently, is illustrated by a homely example. The one man in this country, who is devoting himself assiduously to calumniating and misrepresenting medicine, is the son of a doctor—a well-meaning man, still engaged in mildly practicing his profession. This good old doctor is a frequent contributor and a professed admirer of one of the most disreputable medical periodicals charged up to the account of American medical literature—let us be accurate and say *the* most disreputable. This means that the son gets an impression of medicine from the literature which he finds on his father's library table. I presume that the son judges that his so-called medical journal represents the medical profession because it says it does and because it contains the pictures of many men of good and high standing who intersperse its advertising pages with the products of their agile pens, innocently and little knowing of the damage they are doing.

A certain publican was once asked by a philistine how far back he could trace his ancestors. He replied that he did not have time to see how far back he could trace them because he was too busy tracing the doings of his descendants.

What useful lesson may we learn from these observations? Simply this: Keep an eye on the boys.—*N. Y. State Journal of Medicine*.

EARLY ASPIRATION IN PLEURISY WITH EFFUSION.—Yarian (*Cleveland Medical Journal*, May, 1907), holds that aspiration of pleuritic effusions is better done early than late; that local measures, internal medication, and all other temporizing means are really of secondary importance except in the smallest collections of fluid, or those which are not accompanied by symptoms of any importance and which yield readily to other treatment. He quotes, as fully expressing his views, from Forchheimer to the effect that the only local measure which fulfils all the indications required for pleurisy with non-purulent effusion is the operative removal of the fluid. In all cases of primary pleurisy it is always indicated. It matters not whether the fluid has reached the tip of the first rib, whether the patient is in immediate danger or not. In secondary pleurisy the vital indication may be looked into for surgical intervention; but especially in the latter

stages of myocardial insufficiency should the fluid be removed from the chest immediately after its presence is detected.

Dieulafoy could find no case of death after aspiration in which not more than 1,200 cubic centimeters was withdrawn at one time, from which he argues that not more than 1,000 cubic centimeters should be removed through a small needle with very little negative pressure in the bottle. He puts his patient in the recumbent or semi-recumbent position, and ceases withdrawing the fluid when the symptoms of faintness come on, repeating the procedure if necessary for the complete emptying of the chest.—*Ther. Gazette*, October, 1907.

TREATMENT OF ARTERIOSCLEROSIS.—Colombo (*La Riforma Medica*) reviews the modern status of our knowledge of arteriosclerosis, pointing out that the later studies seem to show that the elevated blood pressure is rather a consequence or a concomitant phenomenon than a cause of arteriosclerosis. There are cases of this disease in which there is actually a lowered arterial pressure. The origin of the changes in the arteries, while not accurately known as yet, seems to be closely connected with gout and the uric acid diathesis. The latter is due to some form of intoxication of the blood, which is quite analogous to the poisoning with such metals as lead. In these poisonings the arteries assume the same changes which characterize them in cases of arteriosclerosis. Arteriosclerosis, therefore, is now regarded as a toxic condition, and in order to prevent it we must follow the advice of Metschnikoff, who tells us that we can avoid it by preventing the development of an excess of toxins in the alimentary tract. To prevent and to treat arteriosclerosis we must not only use such drugs as the iodides and the nitrites, but also must combat the intoxication in the blood and seek to eliminate the toxic products in every way possible. The skin, the kidneys, the lungs, and the intestines offer such ways. The perspiration is one of the most important portals for the elimination of the toxins in cases in which the kidneys are insufficient. The old idea that heat should not be used in arteriosclerosis has no practical foundation. Heat produces the dilatation of the vessels and secures the elimination of the toxins. The electric light bath for this reason is excellent in arteriosclerosis, the patient breathing fresh air while his skin perspires freely. The intestinal route can be utilized by the administration of such remedies as the saline mineral waters, every morning. A lacto-vegetarian diet with diminished chlorides is indicated in all cases of arteriosclerosis, and the patients must be cautioned to abstain from alcohol in any form. Tobacco is injurious and should be used sparingly. Moderate and systematic exercise without fatigue should be enforced. High frequency currents have been recommended, but in the author's experience they are not really beneficial. Cold foot baths, used several times a day, are recommended to those who suffer from cerebral congestions, vertigo, and headache. The water should be about 38 degrees C., and the bath should last from ten to fifteen minutes.—*Charlotte Med. Journal*.

TO DETECT PRESERVATIVES IN MILK.—The chemicals ordinarily added to milk as preservative agents are formaldehyde, salicylic acid, borax, and boric acid. Sodium carbonate, sodium bicarbonate, sodium fluoride, potassium chromate, and potassium bichromate are also occasionally used. If

milk remains sweet after standing in a warm place for forty-eight hours it is safe to assume that some preservative has been added. As this is a matter of considerable importance, the necessary qualitative analysis requires good technique and some laboratory experience. To detect added formaldehyde, place 10 c.c. of milk in an evaporating dish, and add 10 c.c. of hydrochloric acid and 1 c.c. of ferric chloride solution. Apply heat and stir well. If formaldehyde is present to the extent of 1 part in 100,000, the mixture will turn a pale violet color just before the boiling point is reached. To detect added salicylic acid, add sufficient hydrochloric acid to 100 c.c. of milk to coagulate and filter. Add ether to the whey, shake, and evaporate without applying heat. If salicylic acid is present the residue will turn purple on the addition of one drop of neutral ferric chloride. To detect added borax or boric acid, add 10 c.c. of tincture of tumeric to 10 c.c. of milk, and evaporate to dryness. Slightly moisten the residue with dilute hydrochloric acid, and redry. If either borax or boric acid is present the pink or red residue will turn green or greenish-blue on the addition of a drop of ammonia water.—*Lancet-Clinic*.

PHILADELPHIANS will derive profit from a note in *London Health* which gives valuable advice about keeping door steps white. Here is the information: To whiten a door step wash the steps clean and let them dry. Then mix a little quicklime with some milk and wipe the steps over with it. They will be beautifully white.

THE COATED TONGUE.—A coated tongue, says Rollin (*Berliner Klinische Wochenschrift*) can depend entirely upon pathological processes in the mouth or naso-pharynx. Aside from this, however, certain conclusions may be formed regarding the function of the stomach. In hyperacidity of the stomach one sees as a rule a dark-red, moist, clean tongue. With a lack of hydrochloric acid, however, there is a pale, thick-coated tongue. Rollin explains that in hyperacidity the blood is nourished above normal, circulation in the tongue is very vigorous, and shedding of the superficial epithelium proceeds very rapidly, whereas in an acidity there is an anemia with the consequence that the circulation lacks in force to cast off the epithelium. "In spite of the many statements to the contrary it is the opinion of this author that the coated tongue may often be of diagnostic import.—*Charlotte Med. Journal*.

THE oldest living organism in the world, says the *Canadian Medical Review*, seems to be a cypress tree in Chapultepec, Mexico, which is nearly 133 feet in circumference. Its age is guessed at to be 6,200 years.

DIFFERENTIAL DIAGNOSIS BETWEEN GUMMA AND CANCER OF THE TONGUE.—Gumma of the Tongue.

1. Is the growth of days or weeks.
2. Is a tumor which ulcerates.
3. Purulent discharge abundant, like soft and decayed cheese.
4. Pressure dislodges only caseous masses.
5. Painless or nearly so.

Cancer of the Tongue

1. Is the growth of months or years.
2. Is an ulceration surrounded by a tumor, destroying it yet extending with it.

3. Discharge sanious and filled with gray or black sloughs.
4. Pressure dislodges sebum plugs not unlike those found in erythematous lupus of the face, from the mucous membrane surrounding.
5. Pain at intervals shooting toward ear—diagnostic.—*Amer. Journ. of Clinical Med.*

LUPUS VULGARIS.—A Method of Treatment For. In the *British Medical Journal* of September 14th, Dr. J. G. Tomkinson outlines the following method: A salicylated ointment is used for the removal of crusts and scabs. A small area of the lesion is exposed to the X-ray for from 3 to 5 minutes. If there is no contra-indication, in the course of a few days, the X-rays are again used for about 5 minutes daily; this time, however, on a somewhat larger area. This is to be continued until the whole lesion has been gone over 3 or 4 times. Unnas 50% salicylic acid and creosote paste, is then applied, if the plaster seems to cause marked irritation, a 10 to 20% solution of cocain is previously applied. In about 10 days a great deal of the tubercular tissue will have been sloughed away. The cocain solution is then again applied, dried, and the following solution applied: carbolic acid, 50 per cent.; lactic acid, 15 per cent.; salicylic acid, 15 per cent.; absolute alcohol, 20 per cent. This solution is allowed to remain on for a few minutes, when the following is applied: Carbolic acid, 80 per cent.; alcohol, 20 per cent. If, however, the lesion is an extensive one, only a part of it is cauterized. The part is then dressed for a few days with sterile lint and carbolic oil (1-30), which is followed with an aqueous solution of ichthyol (20 per cent.) until healing has taken place, which is usually rapid. Further X-ray treatment, if necessary, is recommended, short exposures being used, of not longer than 3 to 5 minutes. The treatment should be discontinued, at the end of 3 or 4 months, for a considerable time; the patient returning every now and then for inspection. After several months a second course of treatment is given, which is again repeated after waiting several months. During the interval mercurial ointment or lotion may be used.

RALPH BERNSTEIN.

NARCOTICS HAVE NO PARALYZING EFFECT UPON UTERINE CONTRACTIONS.—Kurdinowski has conducted a series of experiments upon rabbits in the pharmacological laboratory and has determined the above stated fact. He examined the action of chloroform, chloral, morphia, scopolamin, atropine, and viburnum, and found that these substances did not affect smooth muscular fibre. The "myogenic" irritability of this sort of muscle does not suffer, apart from nervous influence.—*Arch. f. Gyn.* 80, 289.

THEODORE J. GRAMM, M. D.

THE ANATOMY OF MENSTRUAL EXFOLIATIVE ENDOMETRITIS.—Ascheim has had the opportunity of examining the specimens from 7 cases of membranous dysmenorrhœa and reports his results in extenso. He concludes that dysmenorrhœal membranes are the products of an acute exudative endometritis occurring at the time of menstruation. Great differences exist in the membranes obtained from the patients, so that it was not possible to speak of a special change. In some instances membranes are discharged with well retained surface epithelium and containing but few

glands, the stroma filled with exudate, and many decidual cells appearing. In other cases the membrane may appear without surface epithelium and glands only along the line of separation, and some deeper glands degenerated so that they can scarcely be recognized as such. The stroma is necrotic, covered with leucocytes and the tissue infiltrated with fibrin. Between these extreme types several intermediate stages may be recognized which prove the identity of the process. This membrane is formed during menstruation. Most fibrinous membranes contain stroma cells and portions of mucous membrane, and hence belong to exfoliative dysmenorrhœa. Decidual cells occur in masses in the dysmenorrhœal membrane, and may then be only with difficulty distinguished from the decidual cells of pregnancy.—*Arch. f. Gyn.* Vol. 320.

THEODORE J. GRAMM, M. D.

THE FUNCTION OF OVARIES REMAINING AFTER HYSTERECTOMY AND THEIR RELATION TO POST-OPERATIVE SYMPTOMS.—The fate of ovaries left after hysterectomy has often furnished a theme for discussion. Heretofore but three cases have appeared in the literature, in which the clinical history of the patient could be compared with the results of histological study of the ovaries obtained years after the former operation. Holzbach adds a fourth case and reports the details. He found that even years after hysterectomy the remaining ovaries are capable of functioning. From this and the results of former clinical observations the conclusion may be drawn for our operative procedure, that the ovaries should be retained when the uterus is removed. If, notwithstanding this, disturbances arise, we are compelled by anatomical findings to seek for the cause not alone in the ovaries. There are doubtless other finer and more widespread changes in the relation of the several internal genital organs than those usually assumed. Changes in the nervous apparatus of the pelvis may perhaps be rightly made responsible for such disturbances. All this indicates that our endeavors during operation, especially in myomectomy, should be directed to operating as conservatively as possible.—*Arch. f. Gyn.* Vol. 80, 306.

THEODORE J. GRAMM, M. D.

THE TREATMENT OF THE PLACENTAL STAGE OF LABOR.—Strassmann gives an entertaining review of this entire subject in an article based upon his own experience. Regarding the time for the delivery of the placenta he says that on an average the placenta may be loosened from the uterine wall in ten or fifteen minutes, and is then expressible, but is not yet ready to be expressed. The signs indicating the loosening of the placenta are the rising of the uterus in the abdomen; the descent of the umbilical cord; the change in the shape of the uterus. There is also a sign of particular advantage for instruction. If the placenta is not yet loosened, the veins of the cord will become turgid when the uterus is pressed upon, and the other hand may then distinctly recognize this wave of fluctuation in the veins of the cord. If the placenta is loosened this sign will be absent. This sign may be useful in judging of hemorrhage from the uterus. In the presence proceed from a laceration, and not from the placental site. In regard to waiting for placental delivery, it is just as difficult to state a definite time, of a uterine hemorrhage if the fluctuation is retained, the hemorrhage must as it is to say how long a delivery should last. We might say in general

that the placenta should not be expressed before the end of a half hour even when all the signs of its having been loosened are present. Exception to the general rule occurs in the birth of unusually large children and of twins. Under these circumstances the loss of blood may be excessive, and one may have to deal with post partum hemorrhage. The author insists that the attendant should remain with the patient at least a half hour after the delivery of the placenta, and lastly the expulsion of clots from the uterus should be favored by gentle pressure upon the uterus.—*Zeithschr. f. Geb. u. Gyn.* Vol. 57, 275.

THEODORE J. GRAMM, M. D.

INFECTION IN SEPTIC ABORTION.—From the vast clinical material in Prof. Olshausen's clinic in Berlin, Seegert has studied the origin and diffusion of infection, the cause of death and the lesions in septic abortion. Most cases are such as run a protracted course, in whom the uterine contents have undergone a putrid degeneration. If the latter were removed, further resorption ceased and recovery set in. These are the cases of pure sapræmia, and the fever is due to resorption, and the micro-organisms are not septic but saprophytic. Although such is the fact, every caution is taken at this clinic, to cause no injury by the use of any sharp instrument or dilator, but the uterus is emptied by means of the finger. In some cases of febrile abortion, especially when criminal manipulations or unsuccessful treatment have been applied or when disintegrating portions of placenta have remained for weeks in the uterus, it happens that pathogenic micro-organisms enter the body, and the case is one of sepsis. In these cases the infecting bacteria are no longer confined to the uterine cavity, but have entered the tissues or vessels. These cases are also treated conservatively by digital removal and disinfecting irrigation. Rapid recovery, however, is not to be expected. If the process remains restricted to the pelvic connective tissue, or to the pelvic veins, or the peritoneum, the patient may recover after a protracted illness, but if the infection spread beyond these the serious symptoms of general sepsis appear. In such cases the micro-organisms rapidly spread through the body, and without any localization the patient dies in a few days. The bacterial blood findings are often negative, but streptococci may be found in the heart blood at the autopsy. Aside from parenchymatous cloudy swelling, icterus and punctiform hemorrhages induced by sanguineous changes, the pathological changes are but few. The author recites 10 cases. Five cases are then recounted in which the lesions were also extra genital, and induced septic endocarditis with fatal termination. The process affected mainly the left side of the heart. Such cases may exist without any signs of thromboses of the pelvic veins. A much larger group is formed by those cases now referred to as the thrombo phlebitic form of sepsis. This form usually arises from the purulent placental site or the dark greenish colored and degenerating endometrium. Occasionally such cases arise from ulcerations or lesions of the vagina or cervix, but this is rare, for the infection was usually carried into the uterine cavity. In 31 autopsies of patients dying from pyæmia, it was remarkable that only 6 cases had local lesions or perforations of the uterus as compared with 25 of those showing lymphogenic infection. The author is therefore inclined to believe that when in pyæmic affections after abortion, there are exudates in the pelvis besides the pyæmic thromboses

and metastases, we are warranted in believing that criminal or artificial injuries preceded. The lymphangitic form of septic infection and of septic peritonitis infection, the author saw in 38 autopsies. He discusses this form of infection under: 1, phlegmonous or lymphogenic septic infection; 2, lymphogenic septic infection with secondary contact peritonitis; 3, acute lymphangitic peritonitis. In 20 of these case there were lacerations of the genital tract, and in 10 the uterus was completely perforated. These cases begin with chill on the second or third day. The infection has taken place at the lesion in the genital tract and advances to the neighboring connective tissue. Thromboses lymph vessels are found in the ligamenta lata. Within a week the pelvis will be filled with an exudate. Pus formation may occur with discharge of the same into neighboring organs, mostly the bowel. If the inflammation in the connective tissue which accompanies the veins of the thigh, advances, the picture of phlegmasia alba dolens is presented, or enormous abscess formations develop. The phlegmon may not remain confined to the pelvis, but following the lymph stream, may affect the connective tissue of the body producing what Virchow called erysipelas puerperale malignum internum. Perinephritic abscesses may form. In 10 cases the phlegmonous process was accompanied by peritonitis. If micro-organisms enter the blood in numbers, metastatic abscesses occur, often in the lungs. In 21 cases acute peritonitis was present. In 12 there were injuries in the genital tract, and the uterus was perforated in 6 cases. Sometimes an infected tract led directly from the genital lesion to the peritoneum, but more often the micro-organisms had perforated the uterine wall, and in some instances caused abscesses in the uterine tissue. Of course it is possible for infection to travel along the fallopian tubes. Thrombophlebitic processes or metastases were never associated with this form.—*Zietschr. f. Geb. u. Gyn.* Vol. 57, 344.

THEODORE J. GRAMM, M. D.

VALUE OF EARLY PUNCTURE OF THE ANTERIOR CHAMBER IN IRITIS.—It has been shown that iris tissue and aqueous from tuberculous human eyes transferred to the eyes of rabbits will only reproduce the disease when it is from a primary eye in the early stages. Experiments in acute endogenous iritis in rabbits have shown that an early paracentesis exerts a favorable influence, and the theory is that the early renovation of the aqueous and the hyperemia caused by the operation would be a suitable means of care in infectious processes. Several cases of iritis in the human eye treated with several paraseteses in the course of a week have recovered quickly.—*The Homœopath Eye, Ear and Th. Joru.*

WILLIAM SPENCER, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

A GENUINE THERAPEUTIC ADVANCE.—There have been many signs during the last few years that the points homœopaths have long insisted upon as essential for the correct study of drug-action, are gradually being perceived by the more intelligent of our opponents. From a recent number of the *British Medical Journal*, we are glad to learn that Huchard (*Journ. des Prat.*, December 1st, 1906), writing on digitalis, says "digitalis appears to act differently accordingly as it is given to a healthy or a sick patient; in the former it has a very feeble cardiac action, and has no action whatever on renal elimination; when given, however, to a patient who is ill and suffering from dropsy, it has considerable cardiac effect. From these considerations, the author concludes that in studying the physiological action of a drug, its effects not only on animals but also on the healthy and sick patients should be investigated." Here—a century late it is true—is the acknowledgment of two of the conditions which Hahnemann laid down in his *Organon*: (1) That drugs act more powerfully on sick than on healthy persons, and (2) that experiments to investigate drug-action should be conducted on healthy human subjects. As a result of these experiments, Hahnemann and his disciples found that no need existed for experiments on animals, and that the experiments which naturally followed on sick persons were of a curative nature. If Dr. Huchard will continue his investigations in the light of these facts, he will soon be convinced of the law of similars.—*The British Homœopathic Review*.

INFINITESIMAL DOSES.—We are glad to know at the early date of 1904, over a hundred years after our illustrious Hahnemann called the attention of the medical fraternity to the efficacy of small doses of drugs, that such a learned gathering of physicians as the Académie de Médecine, of Paris, should be taught the effect of some few drugs in infinitesimal doses.

We suppose the drossing of the *modus operandi* in which these infinitesimal doses act, in the gown of "metallic ferments" is more than accordance with Parisian medical style than the good old home-spun garment of "similia similibus curentur."

The following clipping is from the *N. Y. Herald* of December 7, 1904:

The *Herald's* European edition publishes the following:

A sensational communication was made to the Académie de Médecine to-day by Dr. Albert Robin, who reported his discovery of the fact that certain

metals, such as gold and silver, very finely subdivided and employed in infinitesimal doses, exercise a considerable effect in the vital phenomena.

Reduction of the metals to the desired state is obtained by their electrical dissolution in water. The metal so treated acquires the property of developing a force similar to that of a ferment. This peculiarity of the phenomenon has led Dr. Robin to use the term "metallic ferments" in reporting his discovery.

His metallic ferments when employed in cases of pneumonia in hypodermic injections of from five to ten cubic centimetres of solution containing from nine hundredths to two-tenths of a milligramme of gold, silver, platinum, etc., produced a brusque defervescence of the malady in six cases out of ten before the seventh day.

Thirteen cures were obtained in fourteen cases thus treated.

There is a complete similarity between the natural favorable crisis in pneumonia and that produced by metallic ferments. These ferments, therefore, are capable of producing, aiding or hastening this natural favorable crisis.

After one or two injections the temperature falls suddenly, almost always in a definite manner. The employment of these metallic ferments does not constitute the complete treatment of pneumonia, for complications and the predominance of certain symptoms necessitate accessory therapeutics, but great progress would appear to be made by their use in the treatment of this frequent and serious malady.—*Hom. Eye, Ear and Throat Jour.*

SAMUEL HAHNEMANN never desired nor strove to found a sect in medicine. He strove to bring a great, reformatory truth to the knowledge and to the acceptance of the medical profession at large. Had the medicine of his day shown itself willing to investigate his teachings, and to assimilate all that in them was demonstrably true, homœopathy as a segregated sect would never have come into being. Traditional medicine showed itself a very Herod toward the new-born truth, and the sect of homœopathy perforce formed itself about that truth, to save it from utter obscurity, if not extinction. The separated sect of homœopathy as such, will have fulfilled its use, when the truths of homœopathy have achieved the world over, explicit and honorable recognition and acceptance at the hands of traditional medicine; and when Samuel Hahnemann, with all his human fallibilities seen and admitted, shall be assigned by traditional medicine, his true place as a scientific thinker and experimenter, and a benefactor to the cause of medicine. This day has hardly dawned; yet here and there the watchers on the walls see a lightning in the skies of opposition and misrepresentation that have been for a century so dark, and cry to us who listen: "The morning cometh!" So far as this faint dawn foretells the true morning, in whose light all men shall fearlessly see the truth, and by whose light all men shall fearlessly follow the truth till all division is merged in brotherly co-operation for the healing of mankind, speed that dawn! For in the day it heralds,

. . . . only the Master shall praise us, and only the Master shall blame—

And no man shall work for money, and no man shall work for fame,—

But each for the joy of the working; and each in his separate star,
Shall lift his truths, as he sees them, to the God of truths as they are!

—J. P. Sutherland, M. D., in *New England Medical Gazette*.

PERIODICAL EXAMINATIONS OF THE EARS should be made and functional tests applied at all ages, and after any general disease or affection of the upper air tract, inasmuch as serious damage to the ears may take place without the knowledge of the patient. When the individual is aware of the impairment, the pathological changes have advanced far enough to render recovery difficult. The early detection of aural disturbances allows adequate treatment, with the expectation of the prevention of aural vertigo, tinnitus, deafness, intracranial lesions from middle ear suppuration, and the dangers of systematic infection.—*Hom. Eye, Ear and Throat Jour.*

ELECTRIC SLEEP.—During the last few years several well known investigators have devoted considerable attention to the experimental production of sleep by means of an electric current passed through the brain. The current employed is one of low tension, with interruptions of moderate frequency. Sleep, or at least abolition of the power of voluntary movement and apparently of sensation, may be induced suddenly or gradually. When it is induced suddenly, it is apt to be accompanied by certain highly undesirable occurrences. It is the cathode that is to be applied to the head, the anode being affixed to some more or less distant part. By a special modification of the procedure an epileptoid convulsion may be produced, and by raising the voltage sufficiently death may be caused.

The only practical application of electric anæsthetization suggested by Dr. Robinovitch is that of employing it to do away with the imaginable instant or more of pain felt by criminals who are executed with the electric current. She remarks also that the high voltage generally used in executions is unnecessary, and that it is quite practicable to avoid burning of the parts to which the electrodes are applied. These humane considerations will probably appeal to those who are charged with the duty of doing murderers to death by means of electricity.—*Red Cross Notes*.

WHAT THEN SHOULD THE PROPER DOSE BE? This is a block where many stumble, and this is a point over which others fight. How often we see here at home, as we have seen abroad, one holding the flag of high potency alone up high, and another religiously sticking to the low and carefully avoiding the high. They fight doubtless for the cause of what each thinks is right, each trying to correct the other, but often at the cost of that which is their common cause—homœopathy. To us it seems that there can be no hard and fast line pointing to this, and that each individual remedy, in each individual potency, has its own place. The physiognomy of the patient, his station or rank in life, the nature of the malady he is suffering from, the climate he lives in, and factors similar are no doubt helps accessory to the verdict of experience; and keeping the axiom—the smallest and the simplest is best—before us, we must always try to minimize the dose as far as possible and reduce it to such an extent that after its ingestion it shall excite a scarcely observable homœopathic aggravation in the patient and no more.—S. Goswanic, M. D., in *The American Physician*.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

PLEXIFORM LAYER OF THE VISUAL CORTEX. Roman y Cajal (University of Madrid) asserts that the plexiform or molecular layer of the visual cortex is one of the oldest cerebral formations in the phylogenetic series. "It presents characters similar to those of the human cortex in all vertebrates except the fishes. This has been fully demonstrated by the researches of comparative histology undertaken by Oyarzum (batrachia), by myself (batrachia, reptilia and mammalia), by my brother (batrachia, reptilia), by Eddinger (batrachia, reptilia, aves), by Cl. Sala (aves). In the visual cortex of man, the structure of this layer coincides perfectly with that which my own researches, as well as those of G. Retzius, have revealed in the motor region. The only modification which may be noted, visible even by Nissl's method, is its notable thinness in the margins of the calcarine fissure (except in the sulci) and here it appears somewhat thinned. This diminution in thickness, noted by authors generally, depends probably on the small number of medium-sized and giant pyramidal cells in the underlying layers, because it is well known that each pyramidal cell is represented in the plexiform layer by a spray of dendrites. A similar opinion has been expressed by Bevan Lewis, in order to explain irregularities in thickness of this layer in different regions of the cortex of the rabbit and guinea-pig.

"The structure of the plexiform layer is very complex. From my own researches, confirmed largely by those of Retzius, Schafer, Kolliker, and Bevan Lewis, it follows that it consists of an interweaving of the following elements: (a) The radial branches of the small, medium-sized, and giant pyramidal cells, with which we must include in addition those of the so-called polymorphic cells; (b) layer of terminal ramifications of the ascending axons of Martinotti; (c) layer formed by the arborizations of the nerve fibres, terminal or collateral, which come from the white matter; (d) layer of special or horizontal cells of the first layer (Cajal's cells, of Retzius); (e) layer of small and medium-sized stellate cells with short axons; (f) layer of neuroglia cells, well described by Martinotti, Retzius, and Andriesen.

"a. Terminal arborizations of the pyramidal cells. As my observations have shown in case of the mammalian cortex, and those of Retzius for the human foetus, the radial trunk of the pyramidal cells does not end, as Golgi and Martinotti supposed, in a point entwined by neuroglia elements in connection with the blood vessels, but in a spray of varicose dendrites covered with contact granules, spreading out sometimes over a considerable area of the plexiform layer. In my first work on the cerebral cortex, I thought that the only cells whose terminal dendrites reached up to the first layer were the medium-sized, small, and giant pyramidal cells; but my latest researches have enabled me to discover that all cells possessing a

radial stem, without exception, including even those of the deeper layers, are represented in the plexiform layer by a terminal dendritic arborization. It is without doubt an important structural law whose physiological import must be very considerable. We may observe that large trunks which arise from the giant pyramids divide into a spray with very long and thick branches having their distribution in the deeper level, while the slender stems emanating from the medium and small sized pyramids form an arborization of numerous slender branches of limited extension and distributed particularly through the superficial laminae of the plexiform layer. This distribution, which is not absolutely constant, leads us to surmise that the terminal arborizations of each kind of pyramidal cell comes into contact with special neuritic terminal arborizations in traversing this first layer.

"The trunk and end brush intended for the first layer appear not only in preparations made by the chromate of silver method; for I have stained them perfectly with methylene blue (method of Ehrlich-Bethe) in case of young animals, and also in adult gyrencephalous mammals, such as the dog and cat. Besides, in good preparations by Ehrlich's method, particularly when fixation has been made a short time after the impregnation, one may see very distinctly the contact granules of the dendrites, processes which I was first to describe and whose existence has been confirmed by many investigators since. With methylene blue they present the same appearance as in Golgi preparations, i. e., they are slender and short, stand out at a right angle, are sometimes divided, and end freely in a rounded knob. This proves, accordingly, how groundless are all the gratuitous objections which have been brought against the pre-existence of these appendages, as well as against their mode of termination. Among the entirely arbitrary conjectures which have been made as to the disposition of these appendages we include also W. Hill's opinion, who considers them the fibres of a reticulum that is incompletely stained by means of the chromate of silver. We must proclaim emphatically, that at present there is no method of staining cellular processes that is capable of disproving the agreeing results of the method of Golgi, Ehrlich, and Cox. Whoever, having as a foundation the revelations of any one of these methods, has considered it possible to demonstrate the existence of such a reticulum has only exposed to view his own lack of experience in handling these important means of analysis."

(To be continued.)

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INTESTINAL PERFORATION IN TYPHOID FEVER.

BY

JOHN DEAN ELLIOTT, M. D., PHILADELPHIA, PA.

(Read before the Homœopathic Medical Society of Pennsylvania.)

Twenty-three years have passed since Leyden advised operation for perforating typhoid ulcer and Mikulicz reported the first successful case, but, though much progress has been made since then, the proper importance has not been accorded the surgical treatment of this most dangerous complication. With our modern methods and increased knowledge the death rate of typhoid fever has been steadily falling, but in this respect it has not been as correspondingly great, so that the ratio between deaths from perforation and those due to other causes is becoming smaller. The operative mortality has come down from 90 per cent. until now it is certainly as low as 75 per cent., indeed from collections of reported cases less than 70 per cent., but allowance must be made for the fatalities which never reach print. On the other hand a number of patients die after operation when the perforation and the concomitant peritonitis have been cured, but in whom the typhoid toxæmia has been the lethal agent. The conditions at post-mortem have not been thoroughly enough studied, at least very few detailed reports can be obtained, and it is evidently unfair to place the responsibility for the fatal outcome upon an operation when the patient has recovered completely

from its shock and there remains no evidence of peritonitis, microscopically, macroscopically or bacteriologically. It will only be through such examinations that the true operative mortality will be determined, and it is possible to make them in almost every instance, through the abdominal wound if permission for a complete autopsy cannot be obtained.

When we consider that one-eighth of the deaths from typhoid fever are due to this complication and that in the United States the mortality from this disease amounts to nearly forty thousand per annum, the importance of any method of treatment which will save one-quarter of the perforative class must be appreciated. Occasionally a non-operative cure will take place but this must of necessity be a rarity, less than one in a thousand. Very few authenticated instances are on record, and they must bear good proof to be of value, for many clinical diagnoses have turned out to be wrong, both on the post-mortem table and at operation. Within the last year I saw one of these so-called cures of nature at an autopsy held by Dr. C. F. Rau at Hahnemann Hospital upon a patient who had died of a general peritonitis following a perforation. The peritonitis was present and the opening easily found, but upon further examination an older perforation, almost at the ileo-cæcal junction was made out, which was completely occluded by the firm attachment of the omentum and showed evidence of repair being safely under way. When a diagnosis of perforation has been made the treatment is the same as in similar lesions from appendicitis, gun shot wounds, etc., and surely none of these conditions can be left to nature.

The pathology of typhoid fever was placed upon a sound basis by Mallory who showed definitely that the enlargement of the lymphoid structure of the intestine is due to the toxins producing a hyperplasia of large, nucleated, endothelial cells, both in the lymphatic apparatus and the blood vessels, which have a marked phagocytic power and absorb and destroy the surrounding lymphocytes so they can only be seen where the endothelial cells have not proliferated. This hyperplasia occurs in all of the lymphoid structures until these cells are present in large numbers in the dense fibrous tissues of the submucosa, beneath the patches of Peyer and the solitary follicles, and for some little distance peripherally, even beyond the limits of the lymphoid tissue. In the muscular coats this cellular increase is most noticeable along the lymphatic vessels and

the lymphatic spaces around and near the blood vessels, while subperitoneal collections are found usually only underneath Peyer's patches. In the milder cases these cells undergo fatty degeneration and rapidly disappear; but in the more severe, those in the lymphatic vessels, which by the tenth day are distended by them, first undergo degeneration and are then bound together by fibrin, forming thrombi which more or less completely arrest the lymphatic flow. Beneath the lining endothelium of the large and small veins there are collections of these cells in what must be lymph spaces or vessels which project into the lumen. When these become necrotic, especially if the endothelium of the vessel is destroyed, they constitute centers for the origin of fibrin, from which a clot forms occluding these vessels and by extension also the capillaries. The parts cut off from their blood supply quickly undergo necrosis and thus a typical typhoid ulcer develops. It is at this period that the polymorphonuclear leucocytes, which have previously shown a surprising absence, appear in large ulcers near the surface of the necroses where the intestinal bacteria are invading the necrotic tissue. Fisher has observed thrombi from the agglutination of red blood cells in experimental infections with the typhoid bacillus, and Flexner has found what he terms, unmistakable evidences of agglutination of red corpuscles in the blood vessels of the intestine and other organs in typhoid fever. What causes this agglutination and how much it has to do with the formation of the thrombi, and hence the ulcers, has not yet been determined. If the process has included all of the coats a large perforation develops and this variety is frequent at this time, but if the ulceration is shallow and gradually involves the whole thickness of the wall, a smaller, perhaps pin-point, opening results, which may be preceded by a plastic peritonitis causing a gluing to neighboring gut or omentum, or an abscess limited by adhesions. If this does not take place, and unfortunately it seldom does, a non-limited peritonitis follows. On account of the mobility of the ileum and its comparatively unprotected position and, possibly, on account of the kind of bacterial infection adhesions do not form so readily as in appendicitis. In the vast majority of cases the perforation is situated in the lower three feet of the ileum, next in frequency in the cæcum or appendix, but it may be met in any part of the intestine, even the sigmoid flexure. Fortunately they are usually single, although as high

as twenty-five have been encountered, and they are almost invariably opposite the mesenteric attachment, however one case ruptured between the layers of the mesentery and closely resembled a suppurating gland. The intestinal walls may be several times their ordinary thickness and so friable that sutures easily cut out, or from much ulceration may be almost as thin as paper.

Reverting to the question of the slow progress made by surgery in the treatment of this condition the principal answer lies in the difficulty of making an early, accurate diagnosis; it is easy to recognize a general peritonitis but then the chances of recovery are slight. A number of factors produce this difficulty, delirium, apathy and stupor from a profound toxæmia may make an exact diagnosis impossible but these are the cases which offer the least hope; many are allowed to die because they are not carefully enough watched, and the surgeon is too often called into consultation only to find an already moribund patient. There is little that is new in the diagnostic methods of perforation to-day and it appears doubtful if any pathognomonic symptoms will soon be discovered, but the death rate can be greatly improved if a proper use is made of those at hand and every patient is thoroughly studied. Each one should be carefully examined day by day so that the amount of abdominal pain, tenderness, rigidity and distention is known, and if a perforation is suspected the difference in any of them can be accurately judged in that particular person. In hospitals, and wherever else possible, it would be a splendid plan to have the surgeon examine all serious typhoid fever patients with the physician and thus familiarize himself with them. Then if a perforation is suspected and the physician cannot be reached at once, the surgeon can be called and will be in a position to make an immediate diagnosis. It must be remembered that the first and most important requisite of success is an early operation and two or three wasted hours may decide between a favorable and a fatal outcome.

Pain, preceded perhaps by a history of a cold bath, straining at stool or some form of exertion, is the first symptom to attract attention in a very large proportion of cases and is characterized by its sudden onset, its great severity and its persistence over a considerable period, though after an hour or two there is usually some amelioration. Occasionally

it is paroxysmal, and with apathy or delirium it is slower in approach, less intense, and in a small percentage may even be entirely absent or overlooked. Primarily the whole abdomen is affected, though in the male the pain may be referred to the genitalia, especially the bladder or the end of the penis, but later it becomes most intense in the right lower quadrant.

Rigidity appears almost as quickly as pain and, differing from appendicitis, is a more valuable symptom than tenderness as it is less influenced by the typhoid state. All of the abdominal muscles may participate, but careful palpation will demonstrate an accentuation over the lesion, so that the right rectus is the one most involved. Sometimes it is so prominent that it will stand out like a board, and again it is only possible to make out a difference between it and its fellow by palpating close to its insertion into the rib border.

Tenderness must be placed last in this great trio for it is more often absent than either of the others. When present it is invaluable, and like them it may be general over the abdomen, but is most marked over the point of rupture. Any or all of these symptoms are at times present during the course of typhoid fever without a perforation, and the knowledge of the previous condition is of the greatest help in arriving at a conclusion. But when a typhoid patient, from no known cause, develops sudden, severe, abdominal pain, lasting for an hour or two, especially if accompanied with rigidity and tenderness, a perforation has almost certainly taken place.

Shock is practically always present to a greater or lesser degree and will be evinced by the appearance of the patient; the face assumes a peculiar pallor and drawn look, the lips are cyanotic until, as the peritonitis spreads, this gradually blends into facies Hippocratica. The patient becomes restless, is chilly or shivers a little, begins to perspire or may be bathed in a cold sweat, while the pulse increases in rapidity and at the same time gets weaker and smaller to the examining finger. This last is a sign of the utmost importance. The more toxic the patient the less will this group be discernible but it is possible to recognize some change even then.

The temperature does not appear to be of much value, for the old teaching of a sudden and marked fall has not been borne out clinically. Such a fall points rather to a hemorrhage than a perforation. A rise or fall of two degrees may be noted, but such a change is far from unusual during the

course of typhoid fever and can throw little light upon a diagnosis. Some authors still claim there is a sudden recession of a number of degrees but that it is so transient as to be often overlooked. This appears extremely doubtful from the number of observations to the contrary and, even if true, must be of slight value. Nausea and vomiting are present so infrequently in this complication, and may be present during typhoid fever, especially with severe abdominal pain, that little credence can be given to their presence and none to their absence. The same applies to distention, unless very suddenly developed, although if free gas can be demonstrated in the abdominal cavity it is pathognomonic of intestinal rupture. Absence of liver dulness is not conclusive of this, as distended gut may cause it when the intestinal wall is intact. Tympany over the liver in the midaxillary line will point more strongly to it than in any other location, for a distended loop of intestine is less likely to be found here. Harte and Ashurst have found suddenly developed, well marked, movable dulness in the flanks of value in some instances, but it is hard to be certain that the fluid is not contained within the lumen. Respiratory changes are of more importance, almost always the respirations assume a costo-abdominal type which gradually merges into the costal as the peritonitis progresses. It may be present with rigidity of the abdominal muscles and distention, but shows an increase with perforation. It is well to make this observation when the patient's attention is diverted for he may unintentionally change the style of breathing of his own volition.

The study of the blood has been disappointing for little information can be gleaned from it. No change in the leukocyte count, or even the differential count, takes place in many of the cases, and in others it is too slight upon which to place much dependence. At times there is an actual decrease in the leukocytes, while occasionally a leukocytosis may develop from unascertainable causes and be misleading. Very weak patients, whose powers of recuperation are depleted and in whom such a symptom would be most useful, show the least change. In the stronger a steady rise in the number of leukocytes comes on with a peritonitis. A wave of leukocytosis, which rapidly reaches its height and as quickly recedes, has been described as happening immediately after all perforations, but whether this is true remains for the future

to decide. To be of any use the blood count must be known previous to the suspected perforation and must be made immediately and frequently after it has taken place. There is often a rise in the blood pressure but this has been recorded in numerous instances with a similar train of symptoms when the intestine was whole.

There remains one other method of diagnosis which must be considered, the exploratory incision. I cannot agree with those who speak lightly of this procedure in such a serious condition as typhoid fever, for I believe that indiscriminate and unnecessary laparotomies must detract from the chances of recovery to a certain extent as every such operation is accompanied by some shock and depression of vitality. Yet it may be said on the other hand, that an occasional exploratory section with negative results is safer in experienced hands than the procrastination that so far has been the order of the day. Then the incision should be generous enough to allow a visual examination of the field for a three inch opening through the abdominal wall is attended with fewer bad results than undue handling of diseased intestine without sufficient working room.

Whether to use a local or a general anæsthetic is a much discussed question. With the former the mental effect must be reckoned with, and rigidity of the muscles cannot be overcome, making the operation more difficult and requiring longer time. The great objection made to the use of a general anæsthetic is the shock; some shock will follow under either method, but with an experienced anæsthetist it will be reduced to a minimum with ether. I believe too much consideration is directed to the kind of anæsthetic and not enough to the manner in which it is given; it is in just such cases that the expert anæsthetist proves his great value, for he produces unconsciousness and relaxation with a minimum amount and the patient may even leave the table in better condition than when placed upon it, the ether acting as a stimulant to a weakened heart.

The best incision is through the outer side of the right rectus muscle or the right linea semilunaris. The cæcum should first be drawn into the wound for it is better to begin the search at a known point than to pick up a loop of intestine at haphazard. After examining the cæcum and appendix the ileum should be brought into view for the distance

of three feet and if no perforation is found this portion should be retraced and examined with the utmost care, for the opening may be minute or hidden by a patch of lymph. The upper end of the part examined should be kept outside to be used as a starting point for further search, but the rest is replaced as soon as it is seen to be intact. If no perforation is found in this neighborhood further search depends upon the local signs of infection and the patient's general condition. Perforations occur but rarely in other regions and complete evisceration is fraught with danger to life. Usually an interrupted purse string suture, in larger openings a row of mattress stitches re-inforced by a continuous Lembert, is all that is required to seal the opening. Excision of the ulcer is unwarranted, it is time consuming and utterly useless. If the perforation cannot be closed longitudinally it may be possible to do so transversely with, I believe, little danger of a subsequent bothersome stricture. Constriction rarely follows typhoid fever for the ulcers do not encircle the intestine, the contents of the ileum are fluid and can easily pass through any slight narrowing from kinking of the gut and such narrowings are not progressive but rather tend to dilate. If these measures are not successful there remain the alternatives of fastening a tab of omentum over the opening, of making an artificial anus or of a resection. It has been suggested that in performing an enterostomy the diseased intestine be surrounded by gauze instead of attaching it to the abdominal wall. This method has several advantages and the combination of it with an omental flap would require the expenditure of little time and take care of any future leak. The mortality of resection will always be high, on account of the state of the patient and the unfavorable condition of the intestine and has only a limited field. When possible a running row of Lembert sutures should be placed around all ulcers in which a perforation appears probable. As drainage is practically always necessary the wound is best left open and when it is clean the pack can be removed and the edges drawn together with a secondary suture. The after treatment is too large a subject to be taken up at this time, but it is well shown in the report of a case which I have appended. Two and even three operations have been performed upon one patient with a successful outcome several times, so the decision of an operation for a subsequent

perforation must depend upon the individual. In view of the paucity of the literature upon this subject I would like to present the report of a successful operation.

J. F., "Barkeeper," a well built man, five feet six inches tall and weighing 140 pounds was referred to Hahnemann Hospital by Dr. W. C. Mercer at 1.50 A. M., Jan. 4th, 1907. The following history was elicited, most of it subsequent to the operation: Father died of tuberculosis, otherwise family history was negative. He had never been ill until four weeks before his admission, when he began to feel "knocked out," had no appetite and was constipated, but complained of no headache or pains. This continued for two weeks when he remained in bed for several days and then feeling better returned to work but was always tired and used stimulants to keep up. On January 3rd, at 5.30 P. M. he was suddenly attacked with general abdominal pain, so severe that it caused him to roll about on the floor. In three quarters of an hour it became easier and localized in the right iliac fossa. When admitted to the Hospital a glycerine and water enema was expelled with a fluid stool containing free blood and some clots and accompanied with a little gas. He was markedly collapsed, face drawn and pale, temperature 103°, pulse 136 and weak, respirations 26, slightly shallow and costal in character, and he suffered from a dry, hacking cough. His tongue was coated and flabby and showed the imprints of the teeth. The abdomen was distended and tympanitic though liver dulness was present, it was tender and rigid all over but the tenderness was exquisite over McBurney's point and the right rectus muscle felt like the proverbial iron band. There were a few rose spots, and on the chest a considerable acne eruption. Examination of the liver, spleen and lungs proved negative except for a few bronchial râles. He showed no hesitancy in pointing to the right iliac fossa as the seat of the greatest pain.

Immediate preparations were made for operation and under ether the abdomen was entered by a three inch incision through the right semilunaris when a large amount of thin, yellow, serous pus was evacuated. The cæcum was delivered and the appendix showed only congestion and dilation of its vessels and was evidently not the starting point of the peritonitis. The wall of the ileum was intensely infiltrated and thickened (one-third of an inch), deeply injected and covered at numerous points with plastic

exudate but was free from adhesions. Enlargement and swelling of the patches of Peyer and the solitary follicles could be distinguished, and in the center of one of the former, about eight inches from the ileo-cæcal valve, was a perforation, one-half an inch in diameter, through which the contents of the gut were escaping. Ten inches above was an ulcer, covered by a thin base of dark mottled peritoneum, which appeared about ready to slough through. A continuous purse string suture was placed about the opening but on account of the friable tissue it cut completely out when being tied. An attempt to close the perforation in the long axis of the bowel was not successful as the thickened wall completely occluded the lumen, but a row of Lembert stitches placed transversely an inch from the edge of the opening brought the two peritoneal surfaces together, though with a marked bend. Under the circumstances it seemed better to ignore the threatened perforation than to interfere with it, so, after quickly ligating the appendix, three large iodoform drains were placed in the peritoneal cavity and a bichloride dressing applied. The temperature was 102°, pulse 140, respiration 44 when the patient was returned to bed, the head of which was raised to 45°, the exaggerated Fowler position, continuous enteroclysis was started and enough morphia given to insure quiet. The temperature and pulse fell steadily until at the end of the third day, the former was 99° and the latter almost constantly under 100, but distention increased until it was enormous and the abdominal wall was hard and tense. Enteroclysis was continued intermittently for it was not always retained, but nothing was given by the mouth although the patient was allowed to suck cracked ice but not to swallow the water. Except for severe pain at times, some nausea and occasional vomiting suffering was slight, thirst or hunger not being complained of. No effort was made to move the bowels but on the third day some of the saline solution, colored brown, was expelled and on the next day there were a number of such bowel movements with offensive faecal odor. During the third night the patient was restless and slightly delirious and his fingers showed a slight tremor. In the morning his mentality became clearer, the distention was less and the abdominal walls softer, but towards evening the temperature went to 101° axillary and the pulse became more rapid, bounding but weaker, the pain was so intense that he cried out, he was covered with hot perspira-

tion and was wildly delirious. About ten o'clock he suddenly sprang out of bed and struggled with the nurses for several minutes before he could be overpowered. His temperature was 102° and his pulse was so rapid and weak that it could not be counted. Strychna was given hypodermatically and hyoscyamus by the mouth. An abdominal examination showed nothing to warrant us suspecting another perforation, or at least a developing peritonitis, so he was strapped into bed and in spite of his efforts to get out of it his pulse improved and at seven A. M. was 116. An enema brought away some fæcal matter and a great quantity of gas, the abdomen became soft and flat and then diarrhœa supervened. I attributed his condition to the typhoid toxæmia, but Dr. Van Lennep the next morning diagnosed delirium tremens and at his suggestion spiritus frumenti was administered hourly with an abundance of highly seasoned liquid diet. This excited delirium lasted for forty-eight hours, the pulse meanwhile became weaker and ranged between 100 and 120 and his temperature remained about 99° in the axilla, until he fell into a sleep from which he awakened more quiet and rational and with a regular and fairly strong pulse. Improvement was continuous after this and on the 17th, the 14th day after operation, the pack was removed under ether and the wound completely closed with three layers of sutures. Except for a small superficial pocket of pus which caused the skin edges to slightly retract but did not interfere with the union of the muscles, his recovery was uneventful and he was discharged from the Hospital on the 31st of January, completely cured, except for two superficial areas which granulating soon healed under treatment in the Dispensary. A Widal made upon the day he left was negative; no blood count was made at the time of his admission, but those after the third day showed the leukocytes to number between 5,000 and 6,000. When seen several months later he had gained between twenty and thirty pounds and the scar was perfectly firm.

I wish to call particular attention to this method of closing abdominal incisions requiring drainage, it was originated by Dr. Van Lennep and has been used in his clinic for the last 15 years with most gratifying results. By leaving the wound completely open until drainage is no longer required, the edges can be accurately approximated and healing takes place with the formation of almost as little scar tissue as with first in-

tion. Even if only a small opening is left for a cigarette drain it must heal by granulation with a resulting weak point in the abdominal wall. Though apparently insignificant at the time, intra-abdominal tension too frequently causes the scar tissue to stretch with a resulting incisional hernia, for it is not the size but the presence of such a weak spot that is of importance as is so well exemplified in hernia cerebri which, as is well known, develops oftener through a small defect than a large one.

SHALL WE PRESERVE THE INTEGRITY OF THE HOMOEOPATHIC SCHOOL?

BY

EDWARD M. GRAMM, M. D., PHILADELPHIA.

Professor of Dermatology, Hahnemann Medical College of Philadelphia.

(Read before the Homœopathic Medical Society of the State of Pennsylvania, September, 1907.)

THE early years of the twentieth century mark an epoch in medicine which is characterized by remarkable activity in legislating on medical subjects. The far-reaching results of the various laws already placed on the statute books of the different States are not within the ken of the participants in recent occurrences. The endeavors which have thus far been put forth are not for the broadening of the foundations of our science, nor are they for the scientific advancement of medical knowledge, neither are they intended to make the healing art a greater boon to suffering humanity. Every struggle and every suggestion that is being advanced in this legislative campaign has a political object. We are told that, no matter what is the guise of the legislation nor how ignoble the coalitions necessary to force it through the representative bodies of the various States, the end and aim of the activity among the adherents of the old school is the unification of the entire medical profession. No explanation is given as to why this unification must be accomplished with a club rather than by diplomacy and the coming together, man to man, of the believers in allopathic methods and the believers in the law of homœopathy. On the contrary, all of whom I have knowledge who have been asked

to affiliate with old-school organizations have been distinctly informed that a prerequisite to membership was a positive agreement not to introduce discussions on the subject of homœopathy into the meetings, to deny that the individual continues to prescribe according to the homœopathic law, to withdraw from any societies professing to study the effects of drugs administered homœopathically or not to affiliate with them; and, finally, to agree to ostracize every physician who is satisfied that he can select drugs according to *similia similibus curantur*. I am satisfied that my experience is not unique but that other members of this Society will corroborate the statement that, veiled or naked, conditions attach to a graduate from a homœopathic college accepting membership in an old-school society that no one who values his manhood can accept.

Is it not, therefore, a fact that in order to preserve the boon that the teachings of Hahnemann have incorporated in medical lore it is necessary that the homœopathic school shall remain a separate entity and that the law of homœopathy shall be developed and confirmed over and over again until it will become impossible for any student of therapeutics to deny its truth and efficacy, until it is impossible for any teacher to ignore it in the curriculum of any college in the world? The time is not ripe for us to sink our individuality.

Let us recapitulate what has been accomplished by the homœopathic school of medicine in the past hundred years. Let us enumerate the incontrovertible dicta that have made a marvelous impression on medicine.

Firstly, We have demonstrated the best method of ascertaining the effects of drugs on the human economy.

Secondly, We have demonstrated the best method of applying drugs for the cure of disease where the drug effects are applicable.

Thirdly, We have brought about a reform in therapeutics that is denied by none.

Fourthly, We have demonstrated that quicker and more certain cures are brought about by homœopathic prescribing than by any other where drugs are required to cure disease.

Fifthly, We have demonstrated that incurable cases live longer and have their suffering more certainly alleviated by the homœopathic method of prescribing than by any other.

Sixthly, We have established colleges, hospitals and dispensaries that are patronized by those who demand homœopathic teaching and treatment.

The time allotted for a paper to be read before this Society will not allow of an elaboration of these statements. From time to time, dating from the establishment of homœopathy up to the present, the student of homœopathic literature will find that each one of these propositions has been dealt with in extenso and its truth established. Statistics which cannot be denied have been collated, many now unfortunately relegated to partial oblivion, that show how much of an advance in therapeutics homœopathy has proven itself to be. We have been made the repository of medical truths which, if we would be true to our trust, we should affirm in our teachings, in our practice and in our lives, truths that the laity holds us responsible for keeping intact and the whole power of the old-school is now and always has been arrayed against us living up to our responsibility. When full acknowledgment of the truth of homœopathy is honestly made by every scientific physician, when in every medical society in the world it becomes possible for cures made by remedies selected according to the homœopathic law to be reported and discussed in the spirit of fairness and with a view of advancing the interests of the sick and suffering, then it will be possible for all sects to fraternize and for a common brotherhood to press forward, shoulder to shoulder, to conquer man's fell enemy—disease. But that time is not yet.

We have established colleges for the teaching of homœopathy and they have proven to be colleges that are second to none in expounding all that is known of the science and art of medicine from its foundation to its capstone. They continue to exist by reason of the fact that students demand that homœopathy shall be taught to them. The cry for a proper presentation of the law of homœopathy will not be repressed and nothing but dissatisfaction is heard in the profession against that institution which does not conscientiously comply with the demands made on it and which it promises to fulfill. Will medicine be the gainer if we allow siren songs to lure us on the rocks of amalgamation and the closing of our institutions of learning?

We have established hospitals and dispensaries. To them thousands resort each year in the full conviction that they have something better to offer in the direction of the alleviation and cure of disease than old-school hospitals and dispensaries can. These thousands look to us to perpetuate our school, to perfect

our system, to keep ourselves from sinking in the medical mire yclept rational medicine. Will we be guided by the true light if we allow that which has been vouchsafed us to be put under the bushel of intolerance?

Let us, for a moment, look upon the conditions which exist in the old school and which will not be wiped out if an amalgamation of the schools were accomplished at the present time.

Firstly, The old-school denies the truth of the homœopathic law. This denial is not based on investigation nor upon a logical proof that our law is false. *The homœopathic law has never been disproven.* It has been decried, its votaries vilified, its application ridiculed; but disproven—never.

Secondly, The old-school demands that, in order to affiliate with it, believers in homœopathy shall renounce their belief even though they continue to practice according to their convictions. The less comment made on this demand the better.

Thirdly, The old-school is employing every means in its power to accomplish its desire to throttle the advancement of our school. Homœopathy must be subservient to it under the law if that can be made possible in any way whatever. No matter what enactments may become necessary to bring about such a condition nor how long it may take, every energy is now being bent to deprive our school of a legal status in the United States. Can we afford to have that occur?

Homœopathy will never die. Truth cannot be destroyed. If certain members of the profession demonstrate that they are so recreant to their trust as to make it possible to have the legal status taken from homœopathy there will still remain a proportion of homœopaths whose faith in our law and whose proof of its efficacy will lead them to perpetuate it—and *humanity will bless them.*

THE MODERN TREND OF FEEDING IN INFANCY WITH SPECIAL REFERENCE TO DIFFICULT CASES.

BY

C. SIGMUND RAUE, M. D., CLINICAL PROFESSOR OF PEDIATRICS,
HAHNEMANN MEDICAL COLLEGE, PHILADELPHIA.

(Read before the Homœopathic Medical Society of Pennsylvania, Pittsburgh, September, 1907.)

IN spite of the vast amount of careful scientific work that has been done in the field of infant feeding there still exists a decided difference of opinion among some of the authorities and their respective followers. I shall not attempt to enter into a discussion of the various controversies waging, but will try to point out the tendency manifested by all competent observers who are busying themselves with the nutrition of the infant.

Ever since the introduction of percentage feeding into pediatric practice there have been a number of conservative, experienced men who never quite accepted the dicta of the advocates of this method and who more or less openly predicted that it could not endure as its practice was not as ideal and perfect as it appeared on the surface. They objected, for a long time in vain, to the elasticity of this mode of feeding and to the lack of uniformity among pediatricists regarding the adjustment of the various percentages of the different ingredients in the food and to the arbitrary manner in which formulæ were recommended and dispensed. The great evil that sprung from the method was the excessive feeding of fat and the insufficient amount of proteid which the child usually received. Carbohydrates, so important to the growing infant were also more or less neglected. As a result of such feeding there was a decided increase in the number of undernourished—not underfed—infants and we also encountered quite an array of cases with fat indigestion, the manifestations of which ranged from simple gastric disturbances to the gravest forms of gastro intestinal intoxications and secondary metabolic disturbances. The last named condition in some instances attained to the state of serious autointoxication; recurring vomiting; convulsions; marked acetonuria.

German pediatricists have for a long time insisted that after

all the most important question in infant feeding is to give the child the proper amount of food, neither too much nor too little and that the proper method of arriving at this question is to determine the calorie requirements of the organism at different ages. Huebner has especially done good work in this direction and he has given us a sound working basis for feeding infants according to their calorie requirements. American pediatricists are taking up the issue and in the last year there has been considerable activity in our pediatric literature on this topic. The writer referred to this question some time since in a paper upon metabolism in infancy and I will here repeat the following remarks from this paper:

"We must recognize that the requirements of normal metabolism undergo periodic variations, dependent upon the varying needs of the organism at different stages of its development. If we view the various diet-lists published in the literature from this standpoint, we will see on close examination that many of them are nothing more than arbitrarily constructed menus. Those based upon good clinical experience have proved empirically correct. The theoretical ones are incorrect and those who try them will meet with failure.

"The food requirements of the organism are expressed in Calories, and we know fairly accurately just what the requirements of the organism are at different ages and under varying conditions of rest and work. These data have been worked out by such tireless investigators as Voit, Pettenkoffer, Rubner and others, and in children the investigations of Camerer, Czerny and Huebner are especially notable. As has been said before, the food requirements of the infant are relatively high, the reasons for which have already been suggested. Expressed in Calories, the "energy-quotient," as Huebner calls it, we find that a young infant requires one hundred Calories for every kilogram of body weight. This energy quotient gradually decreases with the growth of the child. Thus at ten years there are needed 60 Calories pro. Kg. of body weight (Camerer), and for the adult forty-three Calories pro. Kg. (Voit). The Calorie is the unit of heat, and refers to the heat-value of the food. To be more explicit, it represents the amount by weight of a given food required to raise one kilogram of water from 0 to 1 C., when the food is burned in the calorimeter. As the process of oxidization enters so largely into the process of metabolism, this method of estimating the

nutritive value of foods has proved eminently satisfactory."—(*Hahnemannian Monthly*, Jan., 1907.

One of the greatest fallacies in infant feeding has ever been the belief that all that was necessary in order to find a proper substitute for woman's milk was to so modify cow's milk as to make it correspond chemically with the former. It was expected that the child would have no difficulty in digesting such a formula and that this would supply every metabolic requirement to the organism. That this belief is fallacious can not only be demonstrated chemically but its incorrectness is daily seen in practice. The scope of this paper forbids me from entering into the full discussion which so important a subject merits and so much has been written thereon that I could offer you nothing new in this direction. I will briefly however recall to your minds that this theory can be attacked from every direction. In the first place, cow's milk and woman's milk differ chemically in almost every essential respect, not only in the proportion of the fats, proteids, sugar and salts but the proteids of cow's milk are both physically and chemically different from those of woman's and besides cow's milk lacks certain essential constituents, notably lecithin which is an important constituent of woman's. As to the fat, that of cow's milk is certainly less digestible than that of woman's milk; whether this be due to any essential chemical difference or only to the fact that it is not in the same state of emulsification by the time it is fed to the infant makes no practical difference. Lastly the contamination of cow's milk with bacteria is one of the most important and one of the most serious facts to be dealt with in artificial feeding. Indeed the danger of feeding contaminated milk has led some pediatricists to feed sterilized milk exclusively, a practice not entirely devoid of danger as serious disturbances of nutrition, among them scurvy, may be traced in many instances to the exclusive use of sterilized food.

It is therefore quite apparent that the problem of infant feeding presents innumerable difficulties and there is small wonder that such a diversity of opinion still exists among pediatricists.

The manner of computing the calorie value of a given food and determining the "energy quotient," being of such practical importance, naturally merits detailed consideration.

There are two practical methods by which this may be done.

namely, by computing the same from the percentage composition of the milk mixture or by estimating the value of the separate ingredients entering into the composition of the formula. An excellent article elucidating the first method has recently been written by Moorehouse (*Archives of Pediatrics*, Feb. 1907) and the author gives a number of equations and also a diagram by the use of which a computation may be made very quickly. Personally, however, I feel that it is always better to remember the principle by which computations of this character are made and carry out our arithmetical problems in the usual manner, rather than depend upon schemes and formulae which one can never recall at a critical moment.

Because of its direct bearing on this subject let me say, first a word in reference to computing the percentage composition of any mixture under consideration. The simplest method of arriving at this result is as follows: multiply the percentage of the ingredient to be computed entering into the composition of the formula by the number of ounces of the ingredient used in the formula and divide the product by the total number of ounces of the mixture. To illustrate, if we are using ten ounces of a ten per cent. cream in a total mixture of thirty ounces, the percentage of fat in this mixture will be represented by $10 \times 10 : 30$, or 3 1-3 per cent. Proteids and sugar are estimated in the same manner. For example, the ten per cent. cream contains $3\frac{1}{2}$ per cent. proteids; this mixture therefore contains $3\frac{1}{2} \times 10 : 30$, or 1 1-6 per cent.

Having estimated the different ingredients, to wit, the fat, proteid and sugar, the calorie value of the mixture is determined as follows: 1 gram of fat is equivalent to 9.3 calories and one gram of proteid and sugar each represent 4.1 calories. We now proceed to reduce the number of ounces in the twenty-four hour amount to cubic centimetres by multiplying by thirty; next determine the number of grams of fat, proteid and sugar in the mixture by multiplying the number of cubic centimetres in the twenty-four hour amount by the percentage of fat, proteid and sugar. The calories from each constituent may now be readily determined by multiplying by the calorie value of each as given above.

It is perhaps more simple to compute the calories directly from the ingredients entering into the food. In order to do this we must know the calorie value of milk, cream and sugar. According to Rubner a litre of cow's milk contains 690 cal-

ories; mother's milk, 614 to 724 calories according to the fat percentage. Brennemann, (*Jour. Amer. Med. Assn.*, April 20th, 1907) gives the following figures which greatly facilitate the computation of the calories in a food mixture of known composition:

One ounce of four per cent. milk equals 21 calories; one ounce of 16 per cent. cream, 54 calories; one ounce skimmed milk, 10 calories; one ounce sugar, 120 calories; one ounce cereal water about 3. Our estimation is now made by simply multiplying the number of ounces of each ingredient in the twenty-four hour quantity by its calorie value and add the products. The "energy quotient" is now determined by dividing this product by the number of pounds the baby weighs and then multiplying the result by 2.15 to reduce to kilos.

One of the leading sources of confusion still found at the present time in the writings upon infant feeding is the lack of uniformity in the use of the chemical terms applying to the proteids of the milk. Chapin (*Arch. Ped.* Jan., '07) makes a plea for more scientific accuracy in speaking of the various modifications of milk and he points out the following important facts which have been determined recently in the studies of the chemistry of milk, especially through the work of Van Slyke and Hart.

The proteid of milk forming the curd is a chemical combination of lime and free casein. The combination produces a salt which may be called di-caseinogenate of calcium. Rennin coagulates this salt into the well known curd of milk as seen in junket, which is spoken of as paracasein by the Germans. Let us now see what the action of alkalies such as limewater and bicarbonate of soda is in altering the nature of the milk and thus modifying its digestibility. If a sufficient amount of an alkali be added to the milk, the above mentioned casein combination is converted into a basic salt of calcium which is not curdled by rennin, unless there be sufficient acid in the gastric juice to neutralize the alkali. Citrate of soda added to milk also inhibits its coagulability by changing the normal calcium casein to sodium casein; in this manner the digestion of the milk is thrown out of the stomach into the small intestine. In buttermilk the proteid is present as casein lactate which is also unaffected by rennin. For this reason, and also on account of the absence in it of fat, buttermilk is readily digested. Indeed, some writers, notably Bagnisky, consider it an absolute specific in dyspeptic conditions.

Let us now proceed to consider the question of the digestibility of cows' milk. It has long been held that the proteids were the chief source of trouble in digestive derangements and that cow's milk was difficult to digest on account of the peculiarity of its casein. This doctrine has been disproven by actual experiments, (Lecknar, Arch. Ped. July, '07). Of course, cow's milk must be diluted before it can be suitable for an infant food as cow's milk contains approximately three times as much proteid as woman's milk. Lecknar recites the observations of Heubner and Rubner upon the metabolism of the nitrogen compounds of milk from which it was learned that the infant assimilates all but 5 per cent. to 6 per cent. of these compounds. Even if cow's milk could be digested without being diluted there would be a disadvantage in feeding it in this form on account of its high proteid content. It has been shown that feeding an excess of nitrogenous food in infancy does not increase the body weight; metabolic processes however are increased and together with this there is excessive heat production. The result of this exaggerated metabolism is therefore an increase in the work of the skin and respiratory organs in order to dissipate this abnormal body heat, and excessive work for the kidneys to eliminate the nitrogenous waste.

On the other hand, excessive dilution of the milk is to be avoided. Aside from reducing the proteids to a minimum the addition of water to cow's milk lowers its molecular concentration as determined by the cryoscopic method to such a degree that the system becomes flooded with water. This of course is due to the relatively low osmotic pressure of the food as compared with that of the blood serum and the intestinal epithelial cells. Cow's milk contains considerably more proteid than woman's milk but strangely enough its molecular concentration and freezing point are about the same as in the case of woman's milk (Köppes). For this reason it will not bear too much dilution. We have all encountered infants with some form of digestive derangement who were being fed a very weak milk mixture, and who developed general anasarca without any evidence of nephritis. No doubt the low osmotic pressure of the food has played a prominent role in the etiology of these cases.

To revert to the question of the digestibility of casein I shall call your attention to an article by Walls, of Chicago.

bearing on this topic, (Jour. Amer. Med. Assn., April 27th '07, No. 17). He quotes Czerny as stating that the theory of the indigestibility of the proteids of cow's milk is largely based on erroneous observations. If cow's milk and rennin be put into a test tube and gently rotated in imitation of the peristaltic movements of the stomach, a fine flocculent precipitate is formed and not the large dense curd which is formed in the usual experiment. Again, what has generally been supposed to be casein curds in the stools is most frequently clumps of fatty soaps and other fat products.

Walls has purposely fed undiluted skimmed milk to a large number of babies and has never seen curds in the stool as a result of such feeding. As soon as cream was added the curds made their appearance. He has also fed fat-free milk even in acute diarrhoea with apparently brilliant results. While I have not had the temerity to follow the radical methods reported by Walls, nevertheless I have for some time past used skimmed milk, properly diluted, in various digestive derangements, even in cases that had been unable to digest the smallest amounts of whole milk or cream. There is no advantage in imitating Walls and using undiluted skimmed milk even should the infant appear to be digesting it well for the organism does not require such high percentages of proteid, especially in acute diseases, and as has been pointed out above, excessive proteid in the diet adds unnecessary work of elimination to the metabolic processes. Let me however impress you with the important fact that the casein of cow's milk is not nearly such a harmful element in dyspeptic and diarrhoeal cases as is generally supposed.

After all, then, it must be the fat that frequently causes trouble and that has not been credited with sufficient importance as a disturbing element. Indeed, it has been looked upon as so innocuous and even beneficial that some physicians have formed the habit of prescribing it in abnormally large amounts—5—6—and even 8 per cent in some mixtures, using the richest cream either diluted with water alone or added to a milk and cream formula.

The results of excessive fat feeding are a stubborn dyspepsia characterized by persistent vomiting, loss of appetite and usually constipation. Fat is often increased to extreme amounts in order to overcome constipation and instead of correcting the condition it actually aggravates it. Besides the

dyspeptic symptoms, grave nervous symptoms frequently develop, notably attacks of uncontrollable vomiting (cyclic vomiting) and convulsions. Acetonuria is more or less constantly associated with these conditions, this condition being an index of the grave metabolic derangement resulting from such erroneous feeding.

The symptoms of overfeeding often begin so insidiously that the condition is not suspected for a long time. After a period of abnormal gain in weight the child gradually loses its appetite, becomes restless and does not sleep well; there is constipation with dry grayish stools; more or less colic and soon a gastrointestinal catastrophe is sure to follow. Other symptoms are dyspepsia, gradual loss of weight and even marasmus as an ultimate result. Eczema is another prominent indication of overfeeding. As Brenneman (*loc. cit.*) points out, overfeeding towers above all other factors as a cause of nutritional disturbances.

Holt encountered such a large number of cases of serious disturbances resulting from excessive fat feeding in his consulting practice that he felt it his duty to issue a word of warning to the profession (*Arch. Ped.* Nov. 1906). He laid down the rule that no infant should ever receive more than 4 per cent. fat in any feeding mixture, this being the maximum dose, so to speak. In young infants the ratio of fat to proteid should be 3:1; from the 4th to the 8th month we may reduce to 2:1 and after that plain milk, suitably diluted should be used, representing equal proportions of fat and proteid. From personal observation I am more and more convinced that even in these proportions fat will frequently give trouble and that there are a large number of infants who cannot bear the addition of extra cream to their food formulæ.

In regard to percentage feeding I would say that while for scientific purposes it is absolutely necessary to know the percentage composition of food, for practical purposes, on the other hand this is unnecessary. I believe that it is far more practical and comprehensible for the practitioner to think in dilutions rather than in percentages, in other words, let him know how many times cow's milk must be diluted to make it suitable for an infant at a certain age or under certain conditions and no matter whether he be using plain milk, top milk or a milk and cream mixture he should determine the proportion of water to milk or to milk plus cream and decide

whether this be the proper amount. We know that for an infant under one month old, the milk should be diluted 4x; during the second month, 3x; three to four months, 2x, and four to eight months, 1x. To my mind this is the key to the situation. The addition of cream and sugar in proper proportion is also necessary and must be carefully determined but this is second in importance to the matter of dilution.

An important fact to bear in mind, is that after the first half year of infancy an exclusive milk diet becomes insufficient on account of the increasing demands made by the growing organism. This applies especially to iron and other mineral salts which may be supplied by adding beef juice and fruit juice to the diet and by diluting with a cereal decoction in place of plain water. If this precautionary measure be not taken the infant is liable to become anæmic and especially when the food is sterilized it may develop scurvy. The development of rickets may also be averted by taking this precautionary step.

In acute conditions in which milk becomes contra indicated we must temporarily use such foods as barley water and broths. As neither of these articles contain sufficient nutriment to sustain life for any length of time we should always add a cereal to the broth, such as rice or wheat flour and the food value of the barley water will be greatly enhanced by adding the whites of two eggs and half an ounce of milk sugar or malt sugar to a pint of the same.

Where we are obliged to feed very weak milk mixtures on account of diarrhœa or feeble digestion, the percentage of proteids in the mixture may likewise be raised advantageously by the addition of egg albumin or meat juice. I should like to call attention before closing to the value of gavage in cases where owing to great prostration, the infant refuses to take sufficient food. This is a condition frequently encountered in congenitally feeble infants and I believe we do not make use of this valuable method of forced feeding as often as we might.

THE OPSONIC AND ALLIED THEORIES IN IMMUNITY.

BY

FREDERICK B. QUACKENBUSH, M. D., PHILADELPHIA, PA.

(Read before the Homœopathic Medical Society of the State of Pennsylvania, September, 1907.)

IN order to keep within the field of Hygiene and, if possible, within my allotted time, it will be my aim to limit this paper to a brief resume of the various theories advanced in explanation of the phenomena concerned in immunity, including the role played by the opsonins.

A review of the literature devoted to this subject, can not fail to impress the reader with the magnitude of the time and labor expended in research and the conflicting opinions resulting therefrom.

Eminent investigators seem to have massed under the standard of the promulgator of one or another theory, there to tenaciously cling to and fight for that particular school of belief. The debate at times, appeared to be tinged with more personal acrimony than broad-minded scientific effort to get at the true facts, more of an effort to sustain a theory than to establish a scientific truth. The researches have led into a vast maze of conflicting hypotheses and discordant facts which, to the average student, have been most confusing. At the present time, while there are many points remaining unsolved, enough has been accepted and quite definitely established to show that many of the differences were more apparent than real.

Defining immunity in the simplest terms as "The power possessed by an organism to resist disease," let us recall that it may be either natural or acquired, and that of the latter there are two recognized types, viz: active and passive, active when acquired by reason of having survived an attack of an infectious disease, (as variola, rubeola, pertussis), by the introduction of bacterial toxins or vaccines or of bacteria which have either been killed by heat or lessened in virulence through certain culture methods; passive when produced by introduction of serum of an animal which has attained an active acquired immunity.

Amongst the earlier, but now discarded, theories relative

to immunity was the "retention theory" of Wenrich and Chauveau who claimed that the invading micro-organisms liberated certain substances prejudicial or inhibitory to their growth. Pasteur took a directly opposite with his "exhaustion theory," in which he claimed that the bacteria used up some molecular substance necessary to their life and were, in consequence, unable to multiply. Both of these failed to explain natural immunity and did not long withstand the light of subsequent investigation. It was during his study of this subject that Pasteur ventured the prediction that the day would come when all infectious diseases would be treated with bacterial vaccines, an assertion which has long survived the exhaustion theory for, while the latter has succumbed, there now exists a growing wave of sentiment amongst certain investigators in favor of it and great activity is being exhibited in the effort to produce efficient vaccines.

The first really important observations, those which have withstood the test and form a part of the accepted facts of the present time, were brought out by Metchnikoff in 1884, in his theory of Phagocytosis. Metchnikoff and his confreres demonstrated the presence of enzymes in certain amoeba and actinozoa which they termed amoebodiastase and actinodias-tase respectively, and to them, in part, attributed the nutritive processes carried on by the lower order of cellular life. He advanced the idea that similar powers were possessed by certain body cells in the higher order of animal life, and eventually divided these cells into microphages, derived from the leucocytes of the blood and having the power to engulf and destroy bacteria, and macrophages from certain epithelial cells of serous cavities, lymph spaces and nodes, splenic pulp and lymphocytes of the blood which accomplished the destruction of other debris as blood corpuscles and tissue remnants. The enzymes concerned in this process were termed cytases, or specifically, microcytase and macrocytase. It was observed by Buchner and Nuttall and advanced against the theory of phagocytosis, that similar bactericidal power was possessed by certain body juices independently of phagocytosis, which was in turn explained by Metchnikoff as being due to the substances cast into the body fluids through the disintegration, or lysis, of the phagocytes. The power of attraction between the phagocytes and the invading micro-organisms was termed chemiotaxis. If the attraction was positive, the bacteria were en-

gulfed and destroyed, thus constituting immunity, if the attraction was only partial or entirely negative the bacteria were more or less free to multiply within the tissues and produce their untoward effects, thus constituting varying degrees of susceptibility.

It is held that many cells of the body are governed and controlled by this chemiotactic influence, that the cell, being a highly complex molecule, had the power to repel certain substances, ingest and digest others and out of the product to obtain nutriment out of which to reconstruct the molecule.

The humoral or side chain theory, advanced by Ehrlich in 1897, has for its foundation the existence of a specific affinity between certain toxins and the body cells, such affinity Ehrlich holds to be of a chemical nature analogous to the union of the simpler inorganic compounds. In its simplest form, it deals with those organisms which secrete soluble poisons or toxins, notably diphtheria and tetanus.

Ehrlich recognizes the cells of the body as being made up of an aggregation of extremely complex molecules, each having special functions and chemic affinities, some governing nutritive processes, some possessing affinities for proteid toxins and many others which control processes not yet clearly understood. These atom groups he has called receptors or lateral chains, each of which has its special affinity or bond of union termed the haptophore. The toxin molecule is looked upon as being made up of two atom-groups, the haptophore and the toxophore, the former having affinity only for the haptophore group of the receptor.

Explanatory of the action of toxins, it is claimed that when introduced in sufficient quantity, chemical fusion of the receptor and the haptophore of the toxin occurs thus linking the toxophore to the cell and accomplishing its destruction. If, however, the amount of the toxin be small, insufficient to destroy, the cell is stimulated to repair, supercompensation occurs and the receptors are cast off into the blood stream.

These free receptors possess but one bond of union, the haptophore, which by uniting with the haptophore of the toxin molecule satisfies its only bond and renders it inert. These free receptors, constituting the antitoxin, are named by Ehrlich uniceptors. In support of his conception that the union is a chemical one, Ehrlich cites as proof, that mixtures of toxin and antitoxin can be injected into non-immunes without deleterious

effect, or in other words, they can be titrated against each other like acids and bases, that union is hastened by warmth and concentrated solution. The apparent exception noted in the case of tetanus toxin and antitoxin has been explained by Ehrlich as being due to loose union, at first easily broken up but becoming fixed and stable on standing for a short time.

When, however, it is sought to explain the action which occurs upon the introduction of bacteria which do not develop soluble toxins, we are at once beset with more bewildering problems. As previously referred to, Nuttall, as early as 1888, observed that certain bacteria were destroyed by fresh normal serum but not by old serum or that which had been heated to 55 degrees C. Later it was shown that animals subjected to gradually increasing doses of cholera organisms developed an immunity enabling them to withstand many times the dose which would be fatal to a non-immune; further, the serum of the immunized animal, when injected into a non-immune, conferred a similar immunity. It was subsequently demonstrated that a bacterial injection sufficient to produce death could, if mixed with a portion of immunized serum, previously heated to 55 degrees centigrade, (thereby destroying the bactericidal substance contained in normal serum), be administered to a non-immune animal without producing poisonous effects. The conclusion followed that immunity was conferred not alone through the substance residing in normal serum, now known as alexins or complements, but through the aid of another substance, present only in immune serum, and dominated the immune body or amboceptor.

Likewise, it has been shown that the serum of an animal treated with alien blood acquires the power of dissolving, or becomes hæmolytic for, the corpuscles of the animal which supplied the alien blood. It was established that non-immunized serum, containing alexins or complements, did not possess that property, that immune serum, heated to destroy the complement, did possess it, thus affording ground for the assumption that the hæmolytic action also depended upon the presence of two substances—one the complement, a constituent of normal serum and thermolabile, and the other, the immune body or amboceptor, present only in immune serum and was thermostable. It was conceived that the immune body possessed two haptophore groups, one of which united with the receptor and the other linking to the haptophore of the

complement, permitting the destruction of the cell through the influence of the zymophore element. This close analogy between the phenomena of hæmolysis and bacteriolysis furnished the stepping stone to the present conceptions of the formation of the various antibodies concerned in immunity.

There are two other antibodies to which we should briefly refer before considering the opsonins viz: the agglutinins and precipitins.

The earlier observations revealed that serum of certain animals, when mixed with the red corpuscles of another, caused the latter to gather in clumps. In his study of hæmolysis, Bordet discovered that in immune sera this property was intensified, was specific and preceded the solution of the cells. The substances concerned in this reaction were termed agglutinins. Furthermore, they were noted to be active in hæmolytic sera which had been heated to 70 degrees centigrade, a heat sufficient to destroy both complement and immune body. As in the case of hæmolysis, a similar analogy exists between the reactions of agglutinin with red corpuscles and agglutinin with certain bacteria, the latter phenomena forming the basis of the well known Widal reaction in typhoid fever which, though not infallible, has been a great diagnostic aid. While little seems to be known relative to the formation of the agglutinins, except that they are probably derived from the stroma of the cells, it has been pretty clearly demonstrated that although they may, through clumping assist in the ingestion of the bacteria by the leucocytes, they do not necessarily play any part in their digestion; each process seems to be independent of the other.

The serum of an animal treated with that of a not closely related species acquires the property of precipitating a portion of the proteid matter of the latter. The substances through which this is accomplished are known as precipitins. They are not specific in their action and are known to exist in the normal sera of some animals.

To Denys and Leclef is due the credit of first calling attention, as early as 1895, to the presence of substances in normal serum which influenced phagocytosis by leucocytes, and for demonstrating the action of these substances to be of primary importance, in that, when absent, phagocytosis took place to only a limited extent or not at all.

Wright and Douglas subsequently determined their existence

in both normal and immune serum, found them to be partly thermolabile, being only partially destroyed at 60 C., and, concluding they acted upon the invading cells in such a way as to sensitize or prepare them for ingestion by the phagocytes, suggested the name opsonins, (opsono, I prepare for the feast.)

Neufeld and Rimpau, working independently, announced conclusions in accord with those of Wright and Douglas, but suggested the name bacteriotropic substance. Furthermore, it has been shown that there exist in normal serum similar substances having a like influence on red corpuscles, others acting on blastomycetes and still others on trypanosomes.

We are at the present time fairly familiar with bacteropsonins and hemopsonins, and time and further research will probably reveal the existence of opsonins for other cells and processes.

It is also interesting to note that bacteria and corpuscles are attacked by the leucocytes in the presence of human opsonins. but in the absence of the latter, they may be activated by the addition of normal serum of certain other vertebrates, as the dog, rabbit and horse.

We must also bear in mind that the presence of normal opsonins is not unexceptionally required for the phenomena of phagocytosis, it having been proven that certain spirilla, as well as some bacilli, notably *B. pyocyaneus* and *B. subtilis*, are taken up in the absence of opsonin.

Also, it should be remembered, the normal opsonins act favorably with avirulent strains but not with virulent

The opsonins present in immune sera are known as immune opsonins. While their general character and behavior is similar to the normal opsonins, they present certain characteristic differences in being more resistant to heat and possess greater sensitizing power, being able to act upon virulent strains against which normal opsonins are ineffective.

As to whether the normal and immune opsonins are identical, there seems to be a decided difference of opinion. Wright takes the affirmative view while Simon, who was, I believe, the pioneer American worker in this field, holds that his researches will not wholly support such a conclusion.

Of the chemistry and exact source of the opsonins, very little seems to be known. As to their mode of formation, and, in a measure, their action, there is, as in the Ehrlich and Metchnikoff theories, considerable dispute. It is generally recog-

nized, however, that they are in no way related to the leucocytes—a fact seemingly at variance with Metchnikoff's theory of the bactericidal properties of serum being due to substances derived from lysis of the phagocytes. Hektoen claims their development can be readily accounted for along the lines of Ehrlich theory, and considers them as "the product of reaction of cells of the body with certain receptors of bacteria, red corpuscles and possibly other cells for which they in turn have special affinity." Metchnikoff and his co-workers maintained the power of immune sera to be dependent upon the presence of special substances which acted upon the phagocytes stimulating them to take up virulent strains; some others believed the substance to act as a special fixator, converting negative into positive chemiotaxis. Wright, Douglas and others conceived them to act upon the bacteria, or other cells used in immunization, and for which, it has claimed, they acquired specific affinity. The Wright school have so thoroughly supported this conception that, in the main, it has been accorded general acceptance.

Some observers have held the opsonins to be identical with amboceptors; others claim they are agglutinins. Hektoen recognizes them as separate and distinct bodies and, in this view, appears to have the better of the argument. He summarizes his reasons therefor as follows:

1. Normal serum may possess lytic power, but not opsonic, and vice versa.
2. Immunization may give rise to opsonic substances, but not lytic or agglutinating.
3. Heat may destroy opsonic power, while the lytic amboceptors remain intact, and vice versa.

Again, while he recognizes them as a distinct class, he compares them to toxins and complements in so far as they are probably possessed of two distinct groups, haptophore and opsonifore, whose general behavior is similar to those of toxins and complements.

It appears to have been established that there exists in normal sera separate opsonins for various micrococci and bacilli—prominently, anthrax, influenza, diphtheria, pseudodiphtheria, typhoid, colon, tubercle and plague bacilli, and staphylo-strepto-, pneumo-, meningo-, and gonococci.

It is quite possible, aye probable, that further researches along this line will determine opsonins for many other sub-

stances, clear up many disputed points and establish a better understanding of other nutritive processes of the body cells.

Of the practical value of the present knowledge of the opsonins, I think it too early to arrive at positive conclusions. A consideration of the therapeutic application is beyond the pale of this bureau. From a sanitary point of view the conclusions are even more vague. It is acknowledged by all observers that increased opsonic power, the result of inoculation, is of short duration. This, to my mind, gives a rather unstable foundation for the optimistic view that all infections are to be eventually stamped out by the use of vaccines whose dosage shall be standardized, measured and administered through the guidance of the opsonic index. It may not, however, be too much to hope that researches in this field of cellular nutrition may give us such a knowledge of the physiologic chemistry and vital processes of cellular activity, that we may be able to more accurately and scientifically regulate the hygienic regime from infancy to old age, and thus contribute to a higher standard of health.

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CAN SURGERY AVAIL IN THE SELECTION OF THE HOMŒOPATHIC REMEDY?

BY

LAWRENCE M. STANTON, M. D., NEW YORK.

(Read before the Bayard Club, of New York, October 16, 1907.)

WE who seek to live up to the full stature of Homœopathy take the position that while surgery for removal of a pathological product may be at times a necessity, it is always, short of such a necessity, deplorable

Let us examine into this position and see if it be tenable.

We believe, and rightly, that pathological expression is but the outward sign of an inward disturbance; that it is not itself the disease but merely one manifestation of disease; that if we remove by surgery this expression—this tumor, this appendix—we have cut away part of the picture whereby disease makes itself known to us, have cut the ground from under our feet and are left with no information upon which to base the homœopathic remedy.

But, while the soundness of this position is not to be gained, there are times when we cannot to the patient's advantage make a practical application of our philosophy. A case comes to us first hand, has not been tampered with, and yet even here we get no picture, we get no information. We are not going to cure this case, and we turn in some other direction, perhaps to surgery, for help. But if we have recourse to surgery, are we abandoning our case to it; or are we merely asking its aid in order that we may, with a fresh start, continue our work upon homœopathic lines? Are there not cases where the intervention of surgery enables us to discern more clearly the indications for the homœopathic remedy?

The question stated thus baldly is somewhat confusing, and in order to make my meaning clear it is necessary first to make some classification of cases presenting this tangible pathological aspect. We will divide them broadly into those where the indications for the selection of the homœopathic remedy are sufficient and those where they are not; Class A. and Class B., respectively.

Class A. falls into three sub-divisions. First, there are those cases where all the indications for the remedy are found

in the patient, the pathological manifestation giving us no suggestion of the remedy.

The second subdivision is the antithesis of the first. The patient himself, escaping scot-free, presents not a flicker of a symptom which possesses value, and we must turn for information to the pathological explosion. Here there is enough in objective appearance or in local symptoms to enable us to select the homœopathic remedy.

The third subdivision comprises those cases where the indications for the remedy are found partly in the patient, partly in his pathological condition.

We may therefore dismiss Class A., in its three subdivisions. from our discussion, finding there as we do in one way or another sufficient indications for the selection of the remedy. It would not have been considered here at all but to clear the way for a better understanding of Class B., namely those other cases where indications for the remedy are lacking.

Class B. is made up of two subdivisions. In the first are those cases where, after looking far and near, after searching the patient and searching the pathological lesion, we find nothing anywhere suggesting the remedy. The patient seems in perfect general health, and though disease has expressed itself pathologically there is absolutely nothing characteristic in this expression. It is dumb so far as the remedy goes; there is no pain, or none of any character, and as for the objective aspect of the lesion fifty remedies if any, come to mind. We are baffled, or ought to be, and declare the case is not one for Homœopathy.

The second subdivision is equally disconcerting. Here is a tumor which, on account of size or position, is pressing upon nerves, blood vessels or some neighboring vital organ; or here are adhesions, say, compressing, constricting, distorting—in either case we have an array of symptoms, to be sure, but they are reflex and in no way indicative of the real disease for which we are endeavoring to find the remedy. Again our search is vain and again we say it is no case for Homœopathy, perhaps it is one for surgery.

But in so saying we are both right and wrong. Right, in that these cases, mentioned under Class B., may be surgical for the moment, but wrong in thinking that they are not in the end cases for Homœopathy. And this brings us to the point, to the question: Can surgery avail in the selection of the homœo-

pathic remedy? When the statement is made concerning a case that the indications for the remedy are insufficient, the fact is asserted only under existing conditions and with the reservation that under other conditions indications for a remedy might very well appear. Now may they not be forced to declare themselves?

If the expression of disease, either general or local, is inadequate for the purposes of a remedy, or if the symptoms presenting themselves are nothing more than reflex symptoms, may we not by the aid of surgery bring about a new situation, a new utterance of disease from which the remedy is now evident? From a patient otherwise so well that he presents no symptoms, we remove, say, a perfectly dead mass, that is, dead to the remedy; or we remove a tumor that is mechanically giving us only reflex symptoms; in doing so we are creating an opportunity for the chronic disease to express itself anew. It may now manifest itself in some other part or organ and with symptoms no longer vague. We study the patient with new eyes, and now the homœopathic remedy covers the case where before there was no hint of its applicability. Our resort to surgery has not been a last resort but an intermediate step in the discovery of the homœopathic remedy.

At times, then, it seems to me, there are cases where we must decide to play the waiting game no longer but must endeavor by surgery to reach a vantage ground from which the homœopathic remedy is discernible.

BERBERIS: A BRIEF STUDY.

BY

P. W. SHEDD, M. D., NEW YORK.

BERBERIS is well-suited to that subacute condition of ill-health known as the bilious diathesis with a tendency to renovescical disorders, and calculi in gall-bladder, kidney or bladder. Ancestral sins in the matter of gross eating and drinking have taken off the keen edge of vitality; the rheumatismal germ (if there be one) finds an agreeable habitat; hepatic metabolism is sluggish, and the economy gets, literally and figuratively, into a "rocky" condition; the patient is not a merry little soul, but indifferent, melancholic, anxious, timorous, depressed, re-

laxed, weak, chilly, lachrymose, the cerebral or mental condition not being primary but reflex from hepatic or gastric causes, from vegetative life; the head is vertiginous and heavy, headache often after dinner or in the afternoon (an increment of largely waste matter having been added by the meal, or the products of metabolism beginning to heap up in the afternoon), worse by motion and better in the open air, and there may be a sensation of coldness in the right temple or a sensation of the head becoming puffy or enlarged; he is apt to be tired and drowsy by day, must lie down (owing to his load of waste products), yet, after a commonly uncomfortable, unquiet night he wakes unrefreshed, still worn-out in body and mind, and feeling that he had climbed up two steps and fallen back three.

These berberis people not infrequently have recurrent attacks of tonsillitis or quinsy, and the following pathogenic symptoms are suggestive: Tonsillar and pharyngeal inflammation with swelling and fiery redness, and the sensation of a lump lodged in the side of the throat; expectoration of thick yellowy, jelly-like mucus; white sticky tongue; viscid saliva resembling soap-suds; tonsillitis with the sensation of something rough in the tonsil; stiff neck; sensation of a plug in the throat; and probably berberis will rapidly cure such attacks in such individuals where nature + some less similar remedy drags slowly along to recovery.

The pains in limbs and trunk are pulling, burning, gnawing, shooting, tensive, and a bubbling sensation is characteristic of berberis: bubbling in the joints, bubbling in the ears, bubbling in the abdomen externally, bubbling in the renal region, bubbling sensation in the back, sometimes the sensation is expressed by the curious term "bubbling stitches." The pains are worse from motion but better in the open air.

Warts and sessile growths are not normal adnexæ (katabolism has gone wrong somewhere), and when found in a berberis constitution, berberis will, naturally, outrank the remedies most commonly related to this condition: thuja, staphysagria, causticum, sabina, euphrasia, cinnabar, nitric acid, dulcamara.

The alkaloid, berberine has been sometimes used in place of berberis. There is as much difference between a plant tincture and an alkaloid as there is between Vichy Celestin and the mixture of salts and carbonic acid gas dubbed siphon Vichy. The writer, by the way, has been trying an experiment with

Vichy Celestin (the imported natural water), which is recommended to the curious reader (the experiment is recommended), viz. the ingestion of a pint at a dose morning and night for four or five successive days. The reader will surely become interested. The alkaloids have their uses and spheres of activity, but need proving, as their chief manufacturers were once informed.

The organopathic range of berberis covers the

Liver and its ducts,
The gastro-intestinal tract,
The uro-poietic organs,
The venous system.

When the clearing-house of the economy, the liver, is panic-stricken, the face often shows it,—consider arsenicum, chelidonium, china, chionanthus, lycopodium, mercurius, nux, phosphorous, podophyllum, pulsatilla, sepia, sulfur. In berberis the face is apt to be pallid or of a dirty-grey tinge, with sunken cheeks, encircled eyes, and an expression of gloom. There are shooting, aching pains in the hepatic region, worse from pressure, or there is sensation of pressure in the liver area.

The hepatic condition is not acute, but subacute or chronic, and the results are rather general than local: the renal excretion refers back to hepatic imbalance.

Gastro-intestinal conditions are also subacute or chronic: bitter, acid, acrid, burning taste especially after a meal; dry mouth with thirst (without thirst: belladonna, bryonia, cocculus, lycopodium, nux moschata, nux vomica, pulsatilla, silica, stramonium); bulimia or anorexia; nausea before meals, bilious risings; aching, shooting or burning pains in epigastrium and stomach, sometimes extending to the pharynx. Constipation is characteristic, with hard and scanty stools like sheep-dung, difficultly voided, and before and during stool there may be pain as from constriction of the sphincter; or, bilious diarrhea may be present. There is violent burning, sore, anal pain, or the parts are sensitive, interfering with sitting.

In the uro-poietic tract we have sticking and digging or digging and tearing pain in either kidney region. In a case of acute renal colic, robust German, aet. 45, where the pain was agonizing (left kidney), frequent vomiting, (reflex), the patient was informed that he would suffer for a half hour, then go to sleep. Fifteen drops of berberis tincture were put

in a half glass of water, a spoonful every five minutes. When the half hour was up, he got a hypodermic of hyoscine-cactine-morphine and went to sleep, waking in the morning free from pain and passing urine whose uric acid needed no microscopy for certification. This uric acid flux continued for four days. Since then (four months) the urine has been normal. Such treatment may jar some high-brows, but woe to the medicine-man, who, the writer suffering such agonizing pain from a mechanical cause, does not relieve within the half hour. Another case was relieved and cured with a high potency of *calcarea carbonica*, but, the exclusive high potentists have too much to say about how drugs should be given, and the writer is contrarily glad to cure with tincture, and thinks it would be healthful if more such reports were made. The renal pains of *berberis* often run down along the ureters (as in the case cited) or from the bladder along the urethra, and are commonly cutting or sticking (*calculous*). The urine may be blood-red and loaded with uric acid which falls down in the old-time brick-dust sediment, or it may be pale-yellow with slightly gelatinous sediment or a turbid, flocculent, clay-like, mucous sediment which later evolves the uric acid crystals. The renal pain may be confused with *lumbago*, in which *berberis* is a prime remedy. The lumbar region in general is as marked a sphere for *berberis* as the sacral region is for *kali carbonicum* or the coccygeal for *kali bichromicum*, *silica* and *zinc*.

The venous disturbance, the relaxation, the lassitude, the swollen varices or varices in many places (characteristically in the groins), the amelioration under the tonic effect of the open air are naturally referred to either heart or liver, in the case of *berberis* to the liver.

An incomplete clinical index of *berberis* is instructive (the value of clinical indices being commensurate with the power of individualization possessed by the prescriber), viz: *Calculus*, menstrual colic, constipation, bilious diarrhea, fistula in ano (with thoracic symptoms—a common complication, however), gastralgia with hepatic troubles (or, vice versa), gout and rheumatism, hemorrhoids, neuralgia of the spermatic cord and testicles, sciatica, *tabes dorsalis*.

To continue this study of *berberis* or develop more of the clinical conditions just mentioned would deprive the inquisitive reader of too much pleasure: the pleasure of doing a thing oneself.

TWO CASES OF GENERAL PARESIS OF LONG DURATION.

BY

R. E. MITCHELL, M. D., MIDDLETOWN, N. Y.

(Read before the Homœopathic Medical Society of the State of New York, September, 1907.)

A CASE of general paresis with a clinical course of ten years is unusual and cases of over twenty years duration are so rare that few have been reported. Two such cases have been observed at the Middletown State Hospital, the only cases out of about four hundred to live more than ten years.

CASE I. H. R., No. 4070, admitted Feb. 15th 1894. A Jewish police officer, married, aged 35. Three years before he had been thrown to the ground and his head hurt by a prisoner (no details but supposedly made a good recovery.) Insanity in the family denied.

For six weeks he had been acting strangely, had extravagant ideas of wealth, said the police were persecuting him. On admission he talked excitedly of his record as an officer, his ability and strength, his great wealth. Said he was Chief of Police in New York (in reality a patrolman) and that his baby, four months old, could speak four languages while he himself was master of twenty-four. Physically he was in good condition. The right pupil was larger than the left, and remained so. Venereal disease was denied but he had a deep scar on the glans.

He changed little in 1894 except that by November the pupillary reaction to light was sluggish and late in that month he had an apoplectic seizure. Immediately following this seizure he was unconscious for a few minutes, was dull the remainder of the day, and for several days thereafter he was restless, faultfinding and destructive. In April, 1895, he was not so strong physically and seemed duller, talked disconnectedly of his money, horses, etc. In July, 1895, he had a second apoplectic seizure while at dinner and recovered quickly. In 1896 both physical and mental failure became more pronounced. He was very irritable, attacked the nurses and other patients without cause. He was restless at night, slept irregularly, talked to himself. He continued untidy and destructive. In 1897 all these traits were more pronounced, he was very

filthy, persisted in throwing food from the windows because he thought it poisoned. In 1898 he had reached the bed treatment stage, was more feeble from then on and had incontinence of urine. His mood varied; at times pleasant, again exceedingly irritable, usually loud talking, profane and obscene. In 1899 he was able to articulate fairly well and seemed stronger for a time. After a fainting attack in 1900 he grew more deteriorated. In 1901 he is noted as being most untidy and destructive of bedding and clothing. In 1902 he gained in weight and grew so much stronger that he was able to walk with assistance. In 1903 he was more destructive, would tear a garment to pieces and tie the pieces in knots, was prone to throw things into the water closet. There was practically no change in 1904 until November 5th when he choked while being fed his supper of bread and milk. He died within a few minutes in spite of efforts to relieve him. At the autopsy a plug of bread was found, wedged fairly tightly, at the bifurcation of the trachea. Here an accidental death terminated a clinical course of *ten years and ten months*.

Dr. Meyer, Director of the Pathological Institute (New York State Hospitals), kindly furnished a report of the pathological conditions found in the brain. The brain was of good size (45 ounces). The pia showed moderate thickening and some opaque spots, especially in the frontal region, and considerable edema over the convexity. Rather firm adhesions between the frontal lobes. Frontal convolutions narrow. Fine granulations in the fourth ventricle. Vessels rather prominent but not sclerotic. Sections showed a slight but general infiltration of the pia and cortical vessels with lymphoid and plasma cells. There was a moderate congestion of all the viscera and the larger arteries were filled with fluid blood. No arteriosclerosis (gross examination).

CASE 2. M. O., First admitted Sept. 9th, 1884, number 1536. An American woman of 37, single, housekeeper, good habits. No venereal history, insanity in the family denied. For ten days she had been moving about almost constantly. Her conduct was immodest, swearing, kicking and striking. Staring expression.

Upon admission she was found much reduced physically, rapid weak pulse, pupils widely dilated, numerous bruises. She threw herself from side to side, gave scant attention to questions, talked incoherently most of the time. Was so restless that proper care was rendered difficult.

At first she was thought to be a case of acute delirious mania, subsequently a diagnosis of general paresis was made.

During 1884 the general physical condition improved slightly but the pupils did not react to light and the lips were tremulous. She became very destructive and when mitts were placed on her she regarded them as babies and talked affectionately to them. Much of her talk was incoherent but at times she was quite sensible. She claimed to be able to make \$5,000 a day at her receptions, pointed out ships, horses and trains of cars that she saw in the air. She displayed considerable sexual excitement and developed the idea that she was married. Her language was apt to be profane and obscene and her mood varied. Later she realized that she had said some improbable things and wondered why she had made such statements. A poor memory was established. In 1885 she continued to grow stronger, was dressed and about and later did some work. She was better natured but still displayed much sexual excitement and carried on open flirtations when the opportunity offered. The physical signs were marked: speech defect, sluggish pupils, fibrillary twitching and drooping of the left lid. Her family took her home where she got along satisfactorily although she was not considered well.

She was readmitted January 31, 1887 after having remained at home nearly two years. For three months she had gradually grown worse, could not care for herself, showed little sense of modesty. Vacant facial expression, low muttering speech.

On admission she was found to be weak, arms and legs tremulous, numerous bruises on the body. The left pupil was contracted, the right widely dilated and the right eye turned outward. Involuntary stool and urine. The patient herself was dull and paid little attention to questions although she answered some in an indifferent way.

This time no one questioned the diagnosis of general paresis.

In 1887 the neurological picture varied; in February a transient left sided facial paralysis, in March and April a left sided ptosis, in December a paralysis of the right side of the head and left side of the body. The pupils were dilated and sluggish, speech defect became very pronounced, persistent twitching of the lips and general tremor. She gradually grew so weak and unsteady that she was bedridden and finally was not able even to feed herself. Early in the year she talked

expansively of her money and jewels (said she owned tubs full of diamonds, gave imaginary ones away by the hand full, told about her rich gold mine, etc.) She talked, sang and laughed a good deal, explaining that she was bringing the dead back to life. She continued somewhat restless, irritable and resistive until late in the year when she grew very dull and paid little attention to anything. She would open her eyes when spoken to loudly but she did not answer nor did her facial expression change. She was a little stronger in 1888 but some jerking of the muscles of the forearms and hands was noticed. With the physical improvement she was ugly and hard to care for. She said she was 16 year old, weighed five pounds and was kept here for her diamonds. In January 1889 she lost free use of her legs, they were not strong afterward. Shortly after there was a paralysis of the left side of the body quickly followed by a right sided paralysis, which also cleared up rapidly, and again the left sided condition appeared (all came and went in the course of a few days). Her delusions became more extravagant; she owned everything, the rugs on the floor of her room cost fifty millions apiece, two men lived inside her, her hands talked to her. In 1890 she was strong enough to sit up at times, called herself the Queen of London, later said she was the Queen of France. From that time there was little change in her condition until shortly before she died. Most of the time she was an untidy bed patient, at times she sat up and once in a while she walked a little (with assistance). As a rule she was able to feed herself. She exposed herself carelessly and called attention to her "beautiful" body. She was almost always cross and resisted being cared for. At times she screamed and scolded at imaginary persons. She was always profane and heaped abuse and obscenity upon the nurse. Intelligible words became fewer and fewer until for two years preceding death a few profane remarks were all that were left. Deterioration seemed to have reached the extreme limit. In 1905 an examination of the cerebro spinal fluid showed a definite lympho-cytosis. In 1906 she lost steadily in weight and contractures became well marked (the legs were drawn up and the thighs were rotated to the right, the right arm was held semi-rigid to the side and the fingers were sharply flexed, later the fingers of the left hand became moderately flexed.) In November a number of bed sores appeared. On

December 2nd she had a slight convulsion, followed by stupor for one day. In this seizure the head and eyes were turned to the left, there was twitching at the right angle of the mouth and the pupils were widely dilated and rigid. She gradually improved and on December 14th was apparently the same as before the seizure except that she did not speak again until the 24th. A cystitis developed and after several days of low fever, some difficulty in breathing (but no cough) and a moderate increase in the pulse rate, she died on January 7th 1907, *twenty-two years and four months after the onset of the disease.*

The brain was of fair size (40 ounces.) Cortical atrophy was most marked especially in the frontal region and to a less extent in the parietal region, giving the forebrain an odd, wedged shaped appearance. The pia-arachnoid was very edematous, the frontal lobes were adherent to each other, there were large granulations in the fourth ventricle. The dura was quite adherent to the pia and presented a relatively large area of hemorrhagic pachymeningitis in the left temporal fossa. The larger vessels (the basilar and carotids) showed a rather diffuse sclerosis while calcareous patches were observed along the course of the Sylvian branches. The cord was small, with milky pia and thick dura. Sections of the cortex and cord confirmed the gross findings of paresis; a scanty plasma cell infiltration of the pia and the cortical vessels was found. In addition, a fairly well marked wasting (due to the sclerotic vessels) was observed. The cord showed a decided wasting of the posterior columns. All the organs showed well marked sclerotic changes, the lungs a catarrhal pneumonia and the bladder an ulcerative cystitis.

In conclusion: Each of these cases presented quite typical clinical symptoms of paresis. The gross anatomical findings were almost classical and the finding of a general, although scanty, plasma cell infiltration of the cortex furnished definite confirmatory proof.

The second (long) case had a fairly well defined remission early in the course of the disease. The long periods of relative inactivity of the disease process later on, when deterioration had become pronounced, were probably of a similar nature.

The prolonged course, in each instance, may suggest to some a possible successful method of treating paresis. A review of the general and remedial treatment of these cases, while

differing slightly from that of any other individual case, does not present any definite or unusual features. Exact figures as to the duration of paresis are hard to get. Several years ago Dr. Woodman went over all the Middletown cases and found that the general average was about three years. I consider this a conservative figure and I believe that it compares favorably with that of any other institution. Why these particular cases lived so much longer than the average case I do not know, I have no theory to offer. It is possible that early bed treatment had something to do with it but if so why did not this same factor bring about a different result in the large number of cases that died after a few years care. A final analysis is disappointing, for, while they lived a long time, they practically vegetated after the time that death usually occurs.

APPENDICOSTOMY, ITS INDICATIONS AND TECHNIQUE.

BY

GUSTAVE A. VAN LENNEP, M. D., PHILADELPHIA, PA.

Associate Professor of Surgery, Hahnemann Medical College, Philadelphia; Surgeon to the West Philadelphia Homœopathic Hospital; Surgeon to the Women's Southern Homœopathic Hospital; Surgeon to the Hahnemann Hospital, Philadelphia.

THE operation of appendicostomy was devised by Weir in 1902, as a substitute for cecostomy, in the treatment of certain affections of the large intestine. Its use has since been materially extended, until now it is being employed for a large number of conditions, and has even been suggested as a cure for epilepsy. The chief field of the operation is in the treatment of those cases of amœbic dysentery, and mucomembranous colitis, that have failed to respond to the ordinary methods of treatment.

The opening of the appendix allows of the introduction of a catheter into the lumen of the cecum, through which medicated fluids can be brought into contact with the mucous membrane of the entire colon, sigmoid, and rectum. The improvement brought about by this treatment is rapid and positive, and with the least discomfort to the patient, as the fistula does

not leak to any appreciable degree, and can be easily and safely closed whenever the reasons for its presence have ceased to exist.

The operation is also of value in the treatment of ulcerative colitis, whether syphilitic or tubercular, and also for chronic constipation, although we would hesitate to use it for the latter. Recently Keetley has used the appendix as an artificial anus, in a case of inoperable malignant obstruction of the transverse colon, all fecal matter passing out through the appendix for three months. The same surgeon recommends appendicostomy subsequent to operations for intestinal obstruction and resection to drain the gut, and prevent post-operative distension. Maunsell used the appendix to fix and drain the cecum, in a case of volvulus of the cecum and ascending colon, in a woman aged seventy. Recurrence of the volvulus was thereby prevented, and later the fistula was closed. Ewart has made the rather startling suggestion that appendicostomy be performed in certain complicated cases of typhoid fever, to allow of the application of medicated fluids directly to the ulcerated ileum. It is claimed by some English surgeons, that the lumen of the appendix can be dilated sufficiently to allow of the passage of a suitable speculum, through which the ileocecal valve can be seen, and a catheter passed through it into the lower ileum. Whether this is true or not, remains to be proved, suffice it to say that the passage of any instrument into the ulcerated and weakened ileum would be attended with great danger of perforation with its inevitable results.

The conditions for which appendicostomy may be performed are: 1st. Mucous colitis; 2nd. Amæbic colitis; 3rd. Syphilitic ulceration of the colon; 4th. Tubercular ulceration of the colon; 5th. Multiple papillomata; 6th. Chronic constipation; 7th. To fix and drain an ileocecal intussusception; 8th. To drain and prevent distention subsequent to operations for intestinal obstruction, or when intestinal resection has been performed; 9th. To prevent recurrence of volvulus of the cecum; 10th. To apply local treatment in enteric fever as suggested by W. Ewart; 11th. As an artificial anus in malignant obstruction distal to cecum; 12th. As a substitute for rectal feeding; 13th. As a substitute for gastrostomy or jejunostomy in very feeble and emaciated patients.

In his original operation Weir used and recommended the

following technique: Open the abdomen as in appendectomy, deliver the appendix into the wound, and fasten it to the skin at the lower angle. Close the rest of the wound, open the appendix to see if it is patulous, and tie a ligature around it to prevent leakage. The temporary ligature is removed in two days and a catheter is introduced into the cecum. A few days later irrigations are commenced. This technique is simple, but is open to objections because the greater part of the appendix is left in the abdomen, and its tip only is attached to the skin. It acts then as a suspensary ligament to the caput coli, and there is the possibility of the small intestine worming itself around it, thus causing acute flexion and possible fatal obstruction. Again, the insecure attachment to the skin might give away, and the open appendix be drawn into the peritoneal cavity, or leak into it. Lastly, a second operation is necessary for its removal, in order to avoid a possible future appendicitis. The technique was, therefore, soon altered by Meyer, Dawburn, Tuttle and others.

Tuttle lays some stress on the importance of previously mapping out the position of the caput coli by careful examination, even distending the large intestine with gas if necessary, so that the incision may be as small as possible, and most advantageously placed to avoid undue traction on the appendix. He prefers the gridiron incision, large enough to admit two fingers. The artery of the mesoappendix is tied and the mesentery is stripped from the appendix to its base. Fasten the cecum to the parietal peritoneum at the lower angle of the wound by three sutures, one on either side, and one above the base of the appendix, being careful in the introduction of the side sutures not to include the lesser appendicular artery. Close the wound, and fasten the appendix to the skin by a suture on either side. Wrap the protruding appendix in gutta percha tissue and apply the dressings. At the end of two days the organ is usually found gangrenous at its tip, and should be cut away, about one-fourth to three-eighths of an inch from the skin. Follow the aperture with a probe, and dilate it if necessary with some suitable instrument, then introduce a soft rubber catheter, and tie a ligature around the stump of the appendix and catheter, close to the skin. Irrigations can be safely begun on the third or fourth day, using at first warm saline solution until the bowels have been freely opened.

Gant prefers to open the appendix before closing the abdominal wound to see if it is patulous. If the appendix is strictured, or otherwise unsuitable, it is removed and cecostomy performed after the method of Bolton and Gibson. Otherwise, the cecum is sutured to the abdominal wall, the appendix is ligated and cauterized, and anchored to the skin. About the fourth day the portion of the appendix distal to the ligature sloughs off, and irrigations are begun immediately. Bennett uses an oblique incision, stitches the base of the appendix to the parietal peritoneum by a suture passed through the mesoappendix. The excess of wound is closed. Two safety pins passed through the muscular and peritoneal coats of the appendix, just beyond the skin edge, anchor it in position. Two day later it is amputated. Willy Meyer advises fastening the cecum to the upper angle of the wound, and letting the appendix come out obliquely through the layers of the abdominal wall to the lower angle, claiming that there is less leakage by this method, than when the appendix comes directly out to the skin.

The simplest technique should be adopted, the essentials being: 1st. Small gridiron incision; 2nd. Anchorage of the cecum to the abdominal wall; 3rd. Making certain that the lumen of the appendix is patent; 4th. Leaving just enough of a stump to reach from the cecum to the margin of the skin and no more; 5th. Suture of the fistula to the skin. It is surprising how easily a catheter can be passed through the lumen of the appendix, and how readily the organ adapts itself to taking a large instrument. Keetly found no difficulty in dilating a rather small appendix, until it accommodated a small rectal tube.

Of the solutions that have been used for irrigation, the following will be found to be of value: In catarrhal and ulcerative conditions use nitrate of silver, 1 to 5,000; ichthyol, $\frac{1}{2}$ to 1 per cent.; argyrol 5 to 25 per cent.; Hydrogen peroxide 10 to 20 per cent.; aqueous fluid extract of *Krameria*, 10 per cent.; Bismuth and starch water (one dram to one ounce.) In amœbic colitis solutions of quinine have a great reputation, also sulphate of copper 1 to 10,000, as recommended by Moulder, may be of use. Tuttle has found a physiological saline solution at a temperature of 65 degrees to 75 degrees F. very effective.

To the 77 published cases of appendicostomy collected by Tuttle, we desire to add the following:

Mrs. K., 30 years, seen in consultation with Dr. M. W. Sloan, September, 1906. The patient gave a history of chronic diarrhœa of over three years standing. She had been under the care of several other medical men, but with no relief. The movements were liquid, contained mucus, and were from four to twelve a day. Doctor Sloan had at various times examined the rectum and mucus membrane of the sigmoid through a proctoscope, and found some ulceration. Local treatment was of no avail. There was also present a short, blind external fistula and intense pruritus ani.

The patient had consented to any operation that held out a reasonable hope of relief. When I examined her, there was tenderness to pressure over the entire descending colon, but none over the cecum, ascending, or transverse colons, or McBurney's point. There was no evidence of any thickening or tumefaction. Colostomy was considered but was dismissed in favor of the simpler cecostomy, or appendicostomy. The patient was admitted to the West Philadelphia Homœopathic Hospital on October 1st, 1906, and the following operation performed.

A small oblique incision was made and the abdominal contents palpated. The normal appearing appendix was brought up into the wound, and fastened to the skin at the lower angle of the incision. The abdominal wound was then closed, leaving about one inch of the appendix protruding. Five days later this was cut away with scissors, one-quarter of an inch from the skin, the opening followed with a probe, and a No. 16 French soft rubber catheter readily passed into the cecum. No anæsthetic of any kind was used, there was no pain, the patient not knowing that the appendix had been opened until told so. The following day irrigations were begun, and were kept up thereafter daily. From a pint to a quart and a half of fluid was used, requiring from half to three-quarters of an hour for it to pass down to the rectum. The solutions used were physiological saline, glycothymoline 1 to 3, and argyrol 2 per cent. to 5 per cent. It was found that the saline solution gave as satisfactory results as any.

The method of irrigation was as follows: Every morning a plain enema was given, and the rectum cleaned out. The catheter was then introduced into the cecum, and the solution slowly injected. If discomfort was complained of, the flow

of water was discontinued for a few minutes, and then started again very slowly. At first a rectal tube was introduced to give exit to the washings from the colon, but as it produced pain, its use was discontinued, and it was found that the patient could easily expel the fluid as quickly as it came down. The irrigations were carried out under the personal supervision of Doctor Hyzer, to whom I am indebted for his faithful care of the patient, as long as she remained in the hospital.

Improvement was noted from the very first, and continued steadily until the bowel movements were regular formed, and free from mucus. All tenderness disappeared, and the patient put on weight, and considered herself cured. In five weeks' time the irrigations were discontinued, and she was put on a liberal diet to "try her out," as it were. She continued in good health, the rectal fistula healed and the pruritis disappeared. The bowels moved once daily, and the stools remained free from the presence of mucus. Examination of the rectum showed the ulcerations healed, and the mucus membrane normal in color. The patient remained in the hospital for two months longer and, as she kept well and was anxious to be rid of the fistula, it was considered wise to close it. There was but little leakage from it, only brownish colored mucus, and occasionally an escape of gas.

On the 12th of January 1907, after proper disinfection of the fistula, cauterization of the exposed mucus membrane, and tight suture of the same over a plug of iodoform gauze, the abdomen was opened through the old scar, and the remaining portion of the appendix amputated. It is of interest to note that beyond the point of adhesion between the skin and the appendix, the remainder of the tube was free from any attachment to the abdominal layers, and there were no adhesions between the cecum and the parietal peritoneum. The wound was closed, and barring a superficial infection, (from the exposed mucous membrane), healed satisfactorily.

The subsequent history of the case is as follows. The patient left the hospital in January, 1907; she returned to her house-keeping duties and remained perfectly well for a period of six months. She then began to complain of the old soreness in the left side, and shortly afterward the diarrhœa reappeared. A communication from Doctor Sloan, received recently, says she is having some two to four bowel movements every morning, containing some mucus.

It would seem that we erred in closing the fistula so soon in this case, yet the patient was apparently cured and remained well a reasonable length of time before we did so. There can be no hard and fast rule as to the proper time to close the fistula. Every case must be judged on its own merits. The consensus of opinion seems to be, that in mucous colitis, it is wise to wait until the bowel movements have become regular, and have remained free from mucus for several weeks. Our case remained well six weeks, without any irrigations, before we amputated the appendix. In cases of amœbic colitis, the fistula should not be closed for from six to nine months and if the patient returns to the tropics, it should not be closed at all.

To close the fistula it is not always necessary to open the abdomen and amputate the appendix, although this should be done whenever any considerable portion of the organ remains. Tight healing will follow the plunging of the red-hot point of the Paquelin cautery into the mouth of the fistula (Weir); or, the use of nitric acid on the mucous membrane (Tuttle); or, the mucous membrane can be dissected away with a tenaculum and a pair of thumb forceps, leaving a musculo-peritoneal tube which heals solid in a few days, (Maunsell.)

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**STATE BOARDS OF EXAMINERS IN MEDICINE, THEIR PAST, PRESENT
AND FUTURE,**

BY

W. S. SEARLE, A. B., M. D.,

Vice-President and Examiner in Diagnosis of the New York State Board
Under the Law of 1907.(Read before the New York State Homœopathic Medical Society At Its Semi-
Annual Meeting, September, 1907.)

At the earnest request of our President, I have consented to prepare the following paper upon State Boards of Examiners in Medicine in America. I comply with his request, first, because it forms a part (and a not unimportant part) of the medical history of our state and nation; next, because, after nearly two decades of experience with the "three board system," our legislature has determined to try the "single board" plan, which, so far as I can find out, has been successful and, on the whole, satisfactory in other states of our Union

It appears to me improbable that the present system will be changed in any important particular for a considerable time, and, during this interval, it may be well to look at the whole matter from a historic standpoint.

I have hesitated to undertake this task because I cannot perform it without appearing, to some of you at least unpleasantly egotistical. I have long served, mainly in the ranks, of this and other reforms, so that too often I am compelled to say "I" when a different pronoun would be more acceptable to both speaker and hearer.

But a truce to apology. Let us begin.

When I graduated from the Medical Department of the University of Pennsylvania in 1859, the condition of medical affairs in America was most deplorable, and reform in them seemed impossible. For more than a century the medical colleges, incorporated by the various states, had possessed the sole power of granting the degree of *Doctor Medicinæ* as well as of conferring the license to practice, and to deprive them of either franchise appeared so radical and revolutionary that no one, at that time, even proposed it.

Two nominal years of study—two courses of ungraded lectures, final examination by the same professors who had been their teachers—an examination that most often was a

mere farce—and out went an ever-increasing throng of doctors.

If such was the *status* in the best of our colleges, what shall I say of the worst.

No preliminary education was demanded. From the plough-tail to the pill-box through just one and one-half years of study, and the doctor entered upon the highest and holiest functions that life affords.

One essential I have omitted,—the most essential of all. The tickets admitting to the lectures of each professor must be purchased by the pupil and a graduation fee of twenty-five dollars paid. No wonder the number of medical colleges increased.

A cluster of medical friends would organize and incorporate under some general law, advertize liberally and behold a stream of gold.

I have heard it said that a professorship in some of our colleges was worth from eighty to one hundred thousand dollars.

This may not be true, but it might well be under the prevailing system. And so, American medicine became a “by-word and a hissing” both at home and abroad. Only one or two of our diplomas were recognized in England, Germany and France.

I wish it to be clearly understood that I am not speaking of all medical colleges, nor of all their “Professors,” nor of all our students. Our country, then as now, could boast unrivalled physicians, surgeons, professors—the peers of any of their time.

All honor to them!

They, as well as we, felt the burden of the system and would have rejoiced—Nay, *did* rejoice in its overthrow. I am condemning the system—not individuals nor individual institutions.

Early in the year 1868, with the aid of a young legal friend, I drew up a bill designed to effect a change in these conditions, and had it presented to our State Senate by Senator Thayer, of Troy, where I then resided.

I had no hope, and even less expectation, that it would accomplish much, but regarded it as a small step toward reform.

I was asked by Doctor Wm. Wright, the President of the State Society that year, to deliver the annual address for him. I consented and spent my brief hour in arguing the provisions

of this bill. The following day I asked and received for it the unanimous approval of the society. I then moved the appointment of a special committee to consider the measure, amend it, if wise, and press for its enactment into law.

Dr. Wright asked me to name that committee and I did so, putting at its head Dr. John F. Gray, of New York City, with others who afterwards "fought a good fight" in this reform.

It is not too much to say that Dr. Gray was the most powerful factor of us all in leading and perfecting this measure. He was a man of the most commanding ability and influence. He was ably seconded by Doctor H. M. Paine, Dr. Wm. H. Watson and others. Dr. Paine was a most acute and persistent lobbyist and over this measure worked day and night. Without the aid of these comrades my puny efforts would have utterly failed. Lack of time prevents a narration of all the vicissitudes of this measure.

Briefly it may be stated that in 1869 it failed to pass; the next year it passed and was vetoed; in 1872 it became a law. Its main features were as follows:

1st. Appointment by the Regents of one or more Examining Boards.

2nd. As preliminary candidate must show a knowledge of all that is taught in the high schools and of the Latin language.

3rd. Three years of medical study.

4th. Examinations as at present day.

5th. Regents to confer the usual degree and license to practice.

These, in brief, were the salient features of the new measure.

So far as I know, it was the first law establishing State Boards of Examiners in America. And now nearly every state and territory in the Union has adopted this system with slight modifications.

The Homœopathic State Society was the first to demand and receive an Examining Board. Later, by about one year, one was granted to the "old school."

It will be noted that, under this law, the new boards had powers and privileges only co-ordinate with the colleges in conferring the M. D. as well as in the matter of license and, of course, found few candidates knocking at their doors.

Naturally, students chose the places where the fences around

the public pasture were lowest and adhered to the colleges. But the leaven had entered the meal and it was destined, in time, to leaven the whole

Then began what may be called a twenty-year war in the lobbies of the Capitol. The chief bones of contest were two:

1st. The separation of the licensing from the teaching bodies.

2nd. The question of single or multiple boards.

The former of these was finally settled by the law of 1891, which took from the colleges the licensing power and gave it into the hands of the Examining Boards.

It was a long and strenuous battle, interesting but foreign to the purposes of this paper. It covered nearly twenty years. It took about seventeen more years to settle the second contest in favor of the single or mixed board. This latter has but just begun its career and is too recent for comment.

It has been said by the State Commissioner of Education that this change was inevitable. Boards of Examiners had become so numerous and burdensome that the Legislators and Regents were, in a way, compelled to place a check upon them.

Probably few of my hearers have any adequate idea of the work of the Regents. Aside from their supervision of the public schools, they maintain and direct six Boards of Examiners: one of medicine, one of veterinary medicine, one of pharmacy, one of dentistry, one of accountancy and a registry of nurses. And there seems to be no end of similar bodies asking for recognition and protection in their various avocations, so that one cannot wonder that a limit in this direction must be found to the duties of this body of public-spirited citizens. They carry an ever-increasing burden at a great sacrifice of thought and time and without fee or recompense.

We cannot honor them too highly nor be too loyal in their support.

One more feature of the new law demands a few words. It is regarding the elimination of *Materia Medica* and *Therapeutics* from the examining curriculum. This seems to be rendered necessary by the adoption of the mixed board system if we are to look for harmony in its action. To me it appears to be the "right thing in the wrong place," as will later be shown.

Of the present Board, of which I am a member, I have only this to say: As you all know, it contains four "old school"

members, three homœopaths, one eclectic and one osteopath. I judge them all to be able, educated and accomplished gentlemen, anxious first and most to promote the welfare of our profession. Nor can I see how, even if so minded, they could be swayed by partisan spirit.

Before leaving this part of our subject, it should be noted that the charter of the Homœopathic Medical College of New York provides for the examination of its candidates a board of "Censors," none of whom belong to the teaching faculty, and from 1869 until the present date—nearly forty years—the said Censors have performed this duty without fee or emolument of any kind. If any similar board exists, or has existed in any other American medical college, I am not aware of the fact.

So much for the past and present of Medical Examining Boards in our country. Now as to their future

Though not a prophet, nor the son of a prophet, I venture to assert that the new system of State Examining Boards has come to stay. There will be no return to ancient customs and laws. Changes, more or less important, will doubtless be made, as time shows imperfections in the present laws, but the licensing power will never be restored to the teaching bodies. Higher ideals than those which now exist, more perfect methods and loftier standards may be confidently expected to prevail. Some of these I shall now indicate.

Permit me first to mention a few of the more prominent deficiencies of the present system, as they appear to me, and then propose methods for their relief or removal.

In the first place, in this State, at least, the examinations consist of written questions and answers only, so that a candidate with a good memory often far outshines much abler and more competent rivals. Knowledge, often parrot-like, outranks good judgment and skill.

Second—Each State Board has standards of its own, and these are various.

Third—New and distinctive titles and degrees are needed.

Derivatively, "Doctor" means "teacher," and that few doctors are. At least seven varieties of doctors exist in every community, so that this title is no longer distinctive.

Fourth—This system has shown no tendency to prevent overcrowding in our profession.

Other and perhaps as important defects are familiar to all.

Now, instead of discussing these defects in detail, which would be both tedious and unnecessary, I wish to outline in the briefest manner my ideal of a better system, and one which appears to me entirely feasible. The mere statement of it will, I think, carry its own affirmative arguments to minds as trained as yours. No doubt it will also develop objections, but I trust none that are vital.

OUTLINE OF IDEAL.

Although it is held unconstitutional to establish a "University of the United States," it is possible for Congress to establish one for the District of Columbia, and since Mr. Carnegie has offered an endowment for such an institution, I take its creation to be only a question of time.

Now, one department of such a university might be a medical and surgical examining board. Suppose, then, such an institution and such a board—I would utilize it in this way:

I propose that the medical student should be educated as now, obtain his degree of M. D., and then his license to practice from a State Board.

To qualify himself as a candidate for the proposed new title and degree, I should make it requisite that he should have also earned the degree of A. B. or Ph. D.

Having entered upon general practice and having pursued the same for, say, five years, two of which should have been spent as an interne in some reputable hospital, he should then be eligible to examination by the said Board of the University of the District of Columbia.

The fee for such an examination should be a considerable one.

This examination should be both didactic and oral, but, more than all, a practical one. The candidate should be able to name, and to be proficient in the use of, instruments of precision in diagnosis or operation. In the wards of a hospital he should be required to diagnose cases of disease and to conduct cases of labor. In the morgue, he should be called upon to demonstrate and operate upon the cadaver, in case he desires a surgical diploma, not otherwise.

A "paper" examination should follow.

No question in therapeutics of any sort should be allowed. This restriction I deem absolutely indispensable, for it would

at once destroy all present, and prevent all future, sectarianism in medicine. This is the "right thing in the right place" previously mentioned.

Having successfully passed these ordeals, he should be given one of the following titles or degrees, viz: "United States Physician" or "United States Physician and Surgeon," or U. S. P., U. S. P. and S.

These designations are distinctive, unpervertible and easy of understanding by all.

All "U. S. Physicians and Surgeons" should, as such, be eligible to appointments in the Army and Navy without further examination.

Usurpation of these titles and degrees should be severely punished by imprisonment. Of course, to one possessed of such titles thus obtained, most civil and municipal offices and appointments would be open.

Such a system would be of the very highest benefit to the profession by stimulating the ambition of young practitioners and make it really what it now is not—"a learned and liberal profession." It would create and perpetuate an aristocracy in medicine—an aristocracy of learning.

Its benefits in eradicating medical intolerance and bigotry would be enormous and lasting, while, to the community in general, its blessings are too obvious for remark.

I will only add that while such an ideal may appear to some as the dream of an enthusiast and one impossible of attainment, we need only recall the fact of the recent withdrawal of the licensure from medical colleges, a franchise they had held for more than a century, as evidence of the ease with which a reform so sweeping can be carried. That victory is full of hope and promise for still greater reforms.

AMYL NITRATE IN HEMOPTYSIS.—"I now always carry three-minim capsules of amyl nitrite, and as soon as I am called to a case of hemoptysis break one and tell the patient to inhale it quietly and regularly and at the same time warn him of the feeling of fulness in the head it produces, as I found this feeling had alarmed one or two patients. The bleeding usually stops almost at once, though the patient may go on coughing up clotted blood which has been already effused."—Dr. George A. Grace-Calvert (*Lancet*).

EDITORIAL

THE EARLIEST SURGICAL OPERATIONS.

Dr. James J. Walsh in a recent article (*Jour. Amer. Med. Assoc.* Nov. 9) gives an interesting account of the earliest pictures of surgical operations discovered by Mr. Max Müller of the Carnegie Institution.*

The pictures are almost 5000 years old and are about one thousand years older than any previously found dealing with surgery. They were carved on the walls of a tomb excavated in the burying ground at Memphis in Egypt. In the tomb was buried the body of a high official who lived under the the first king of the sixth dynasty, one of the Atotys or Othoes of Manetho. This would make the date not later than 2500 B. C. It has not been definitely decided why so many pictures of surgical operations should be sculptured on this tomb, but it is presumed that the deceased must have had something to do with surgery.

On the left side of the door-posts at the entrance of the tomb are found representations of operations on the hands and feet. The attitude of the patients is that of intense suffering and in some instances an attendant restrains them from interfering with the surgeon.

On the right side of the door-post is found a picture of a surgeon opening a boil or carbuncle on the back of a patient's neck. This would indicate that the fondness of pyogenic organisms for this portion of the human anatomy is by no means a newly acquired taste. The lower row of pictures on the right door-post represent operations on the penis. Müller considers that both of the lower pictures portray the operation for circumcision, but Walsh is of the opinion that one of the pictures represents a surgeon breaking a chordee. Whether this interpretation will be sanctioned by Egyptologists we cannot say, but if so it would demonstrate the presence of gonorrhea as early as 2500 B. C. We have proof already, from

* (*Egyptological Researches. Results of a Journey in 1904. Published by the Carnegie Institution in Washington, 1906.*)

other discoveries, that the disease prevailed in Egypt as early as 1500 B. C. and many of the customs which prevailed among the Jews had for their purpose the prevention of this disorder. As we can readily imagine such a crude procedure as breaking a chordee with a flat instrument must have been attended with excruciating pain in days when anesthetics were unknown, and we do not wonder that according to the inscription in the picture the patient is firmly held by an attendant to whom the surgeon is represented as saying "Hold him; do not allow him to stir." The reply of the attendant is "I will do thy bidding."

It may seem rather strange that illustrations of this sort should adorn the tomb erected in honor of a high official but it is possible that in early times such operations did not have the opprobrium attached to them that they have in our day. In fact the penis was regarded among the Egyptians as an object of worship and on this account the genito-urinary surgeons of that day may have been held in high esteem.

CHARLES MOHR, M. D.

IN a period of less than three years the Hahnemann College of Philadelphia has lost from its faculty by death three men whose names are intimately associated with its growth and progress: Doctors William H. Bigler, Pemberton Dudley and Charles Mohr. One by one it has been our sad duty to chronicle in these pages the departure of these able physicians and esteemed friends, and to-day as we take up our pen to pay a grateful tribute to the life and labors of Doctor Mohr we are forceably reminded of the fact that the men to whom we have been accustomed to look for guidance and who directed the policies of the homœopathic institutions in the city of Philadelphia during the last quarter of the nineteenth century are fast being summoned from the field of action. But the work they started is still to be finished and the gaps in the ranks must be filled by men of a new generation. Fortunate are they that they will find in the lives of their predecessors in "Old Hahnemann" examples worthy of their emulation and memories of earnest and self-sacrificing labors to urge them

on to still greater efforts for the good of their Alma Mater and for the advancement of homœopathy.

The sadness of Doctor Mohr's death was rendered all the greater by its suddenness. On the afternoon of October 30th, he left the Hahnemann Hospital apparently in the best of health. On his way home he suddenly fell on the street. He was taken at once to the Jefferson Hospital but died within a few minutes after his arrival, apparently from an attack of angina pectoris.

Doctor Mohr was born in Philadelphia on May 2, 1844.



CHARLES MOHR, M. D.

During his early life he devoted several years to mercantile pursuits and in 1873 he began the study of medicine under the preceptorship of Dr. E. A. Farrington. He matriculated at the Hahnemann Medical College in 1873 and graduated from the same institution in 1875. Immediately upon his graduation Dr. Mohr entered actively into the work of the homœopathic school in this City and in 1878 was elected Secretary of the Homœopathic Medical Society of the County of Philadelphia. He took an active part in establishing the Hahnemann Medical College Dispensary and was chief of its staff for five years. In 1882 he was appointed visiting physician to the Hahnemann Hospital and in 1901 was elected general-director of the Hospital, which position he ably and capably

filled up to the hour of his death. His connection with the Hahnemann Medical College continued throughout his entire professional career. From 1879-81 he was lecturer on pharmacy; 1882-85 professor of clinical medicine and physical diagnosis; 1885-1907 professor of materia medica and therapeutics. He was a member and enthusiastic worker in all the important local medical societies of the homœopathic school and an honored member of the American Institute of Homœopathy. He was also a member of various scientific and historical societies, including the Academy of Natural Sciences and the Pennsylvania Historical Society.

Doctor Mohr's death will fall most heavily on the institutions which he so long and so faithfully served, the Hahnemann Medical College and Hospital of Philadelphia. The splendid growth which the Hospital has made during the years which he served as general-director is a tribute alike to his business sagacity and to his untiring efforts to advance the interests of the institution. A man of agreeable personality, competent in the discharge of the important duties entrusted to his care, enthusiastic in his advocacy of homœopathy, an able physician and a faithful friend, his life will ever remain an inspiring example of fidelity and usefulness.

OPSONINS. This brings us to the latest wonder. Some physicians or biologists claim to have discovered germs in the blood, so that after their action disease germs are digested by the white blood corpuscles and, being thus destroyed of their power to create disease, the sickness is killed. These opsonins are subject to culture like bacteria, and are injected into the body. All that the doctor has to do now is to find the right kind of an opsonin, make a culture of it, and inject it into the patient, and let these microbes and the typhoid fever microbes fight it out, while he simply sits by and bides his time to make another injection. This does away with all need of drugs and medicines, and gives happy promise of doing away with ninety-nine per cent. of the doctors.

In the light of these discoveries we cannot any longer afford to laugh at the alchemists. We are surely in a way to discover the elixir of life. The microbes that produce many diseases are already known, and soon we will have the various opsonins with which to combat them. Other microbes will doubtless be found and disposed of in the same way. There will still remain, however, one more microbe to be discovered, that is the "old age" bacillus. As soon as this has been found, somebody will doubtless find the opsonin that will prepare him for digestion by the white blood corpuscles, who will forthwith eat him up, and "death, the last enemy, shall be destroyed."—*The Pacific Pharmacist*.

GLEANINGS

FREQUENCY OF MICTURITION IN WOMEN.—In women of middle age frequency of micturition is a common symptom of what is wrongly known as "irritable bladder." One of the most important inquiries in cases of frequency of micturition should be, is it nocturnal? In some cases of prolapse of the uterus the frequency of micturition is notably present only during the day time. The condition is best considered under three headings: (1) Those cases which depend on some change in the urine; (2) those which depend on some condition outside the bladder; and (3) those which depend upon actual disease of the urinary tract from the kidneys downwards.

The most common cases are those which depend upon some change in the urine; thus, excess of urates, excess of phosphates, and hyperacidity. In these patients diet, digestion, and sedentary occupations are often responsible.

The common lesions outside the bladder are tumors on the fundus of the bladder, early pregnancy, prolapse of the uterus, unilateral pelvic cellulitis, and pelveo-peritonitic adhesions. Give potas, cit., hyoscyamus and chloroform.

The third group of cases may require the cystoscope, although even here the cystitis can be discovered by urinary examination. Mild cases do not call for lavage. Besides prolapses, vaginal discharges or dirty catheters may cause cystitis. Calculus, tuberculous ulceration, malignant growths, papillomata, varices at the neck of the bladder are rare and require the cystoscope for differential diagnosis. Stone in the kidney, renal growths, Bright's disease, diabetes, movable kidney, pyelitis, pyonephrosis and tubercle of the kidney may all cause frequency of micturition, and may all be diagnosed by appropriate examinations of the kidney and the urine.

—*The Post-Graduate.*

PLACENTA PREVIA—TREATMENT IN PRIVATE PRACTICE.—Immediate delivery after the first hemorrhage is recommended by Fueth (*Centralblatt für Gynakologie*, No. 12), as there is great danger of secondary hemorrhage or septic infection with other methods of treatment, unless the patient can be watched continuously until delivery.

The liability to placenta previa bears no relation to the age of the mother nor to the number of previous conceptions. The first hemorrhage usually occurs some time before labor, and it is apt to recur if left to nature. Of the cases without immediate medical aid, one-third died. Of 726 cases only 23 had no hemorrhage before labor pains occurred. Treatment with tampons gives great danger of infection in private work, and also of repetition of the bleeding when no physician is at hand. It is therefore best to induce labor, preferably by introduction and inflation of a metreurynter, as soon as the diagnosis can be made. In hospital prac-

tice, where physicians are always at hand, it is perhaps safe to wait if the bleeding is not profuse or can be checked without difficulty.—*Ther. Gazette*, November, 1907.

THE CALMETTE REACTION IN TUBERCULOSIS.—In June last, Dr. S. Calmette announced a new and simple method of diagnosing the presence of tuberculosis. His test consists of placing in the eye of the patient one drop of a one per cent. solution of dried tuberculin. In the case of healthy individuals, according to the author, no disturbance follows this procedure. In tubercular patients, on the other hand, the eye becomes reddened and in a few hours presents all the appearances of an attack of muco-purulent conjunctivitis. The reaction attains its maximum in six hours and subsides within two or three days. Stevenson has employed the test in connection with tuberculous affections of the eye and reports encouraging results. The procedure certainly has the merit of simplicity, and according to Calmette is free from any danger. Whether more extended clinical investigation will confirm Calmette's statements as to its reliability and safety is yet to be determined. If so the test would be a valuable addition to our present diagnostic methods in pulmonary or other forms of tuberculosis.—*British Med. Journal*, October 19, 1907.

TREATMENT OF SIMPLE INFECTIONS OF THE STAPHYLOCOCCUS WITH THE VACCINES OF WRIGHT.—Hartwell and Lee, in the *New York Medical Journal* of October 19, report the results of the work in this line in the Massachusetts General Hospital. It is stated in the article that while in general the vaccine treatment is very complicated, it may be made use of in a very simple manner in the treatment of boils, carbuncles and septic wounds. In the vast majority of such cases the infective agent is the staphylococcus aureus. It is not necessary to prepare the vaccine from the identical organism in the individual case, but good results may be obtained from a stock vaccine made from the *s. aureus*. from any source. After treating 100 cases the writers offer the following conclusions:

(1) Treatment by vaccines is the most effective treatment for boils and carbuncles. (2) Although the vaccine treatment does not absolutely prevent recurrence, cases of chronic furunculosis can be absolutely controlled by occasional injections. (3) Vaccine treatment is a valuable surgical adjunct in appropriate cases. (4) The treatment of this class of cases can be successfully carried out without the estimation of the opsonic index and without special technical training.

TUBERCULIN IN THE TREATMENT OF TUBERCULOSIS IN CHILDREN.—Clive Riviere (*British Medical Journal*, October 26,) states that tuberculin is an agent of great usefulness in the treatment of certain types of tuberculosis in children. He divides his cases into two classes: first, those in which the disease is strictly localized, and secondly, those in which the tubercular infection is accompanied by symptoms of general disturbance. It is in the strictly localized type that the best results have been obtained.

Under its use the patients gain in weight, the appetite improves and there is a decided tendency to heal. Among the lesions thus treated with beneficial results the author notes, superficial abscesses, dactylitis, tubercu-

lous glands, and tuberculous infection of the joints. In the second class of cases, that is in those accompanied by general constitutional disturbances, good results have been obtained but not so rapidly. Pulmonary tuberculosis and tubercular peritonitis are typical examples of this class. While microscopic examinations show that the opsonic index is steadied by the injections of tuberculin, Riviere expresses the opinion that the changes in the opsonic power cannot be accepted as an accurate guide to the therapeutic effect of tuberculin.

The author believes the question of dosage is important and emphasizes the importance of small doses. He gives as the average doses 1-12,000 to 1-8,000 mg. for one year of age, 1-4,000 mg. for five years and 1-3,000 mg. for from ten to twelve years.

In conclusion, Riviere advocates the more extended use of tuberculin in pediatric practice. Failure in the past has been largely due to faulty administration than to uselessness of the remedy itself.

NOTE.—The key of success in the use of tuberculin consists in the careful selection of cases suitable for treatment and in the skilful administration of the remedy in order to avoid aggravating the disease or causing general dissemination of the tubercular process.—G. H. W.

CONSTIPATION IN INFANCY AND CHILDHOOD.—The *Clinical Journal* of June 19, 1907, has in it an article by Cautley in which he gives the following advice:

First of all relieve the retention of feces, and secondly try and cure the habit. Treatment must be steady and persistent. In the simplest cases, in breast-fed infants, all that is necessary is attention to the diet and habits of life of the mother. The breast feeding must be properly regulated. The quantity of milk can be increased by a liberal supply of fluid, tonics, etc. The percentage of fat in the mother's milk can be increased by giving a liberal diet with an excess of proteid, by a moderate allowance of alcohol, and prolonging the intervals between each feeding. Liberal diet must be combined with plenty of exercise, otherwise the percentage of protid in the milk is also increased. Sometimes the administration of a teaspoonful of cream in warm water twice a day, before feeding, is a sufficient remedy. For a bottle-fed infant a suitable milk mixture, containing a high proportion of fat and sugar, must be given. Water should be given freely between meals, and after a few months of age malted food or oatmeal may be added.

The habit of evacuation at the same hour daily must be taught to infants. At first it may be necessary to stimulate the action of the bowels by the introduction of the oiled tip of the finger, the nozzle of a syringe, or a soap suppository into the rectum. If these simple measures are insufficient, the following drugs may be used: Manna, added once or twice a day to the bottle; sodium phosphate or citrate, gr. v. to x, or sulphur gr. j, added to each bottle, or fluid magnesia. If the stools are chalky and white, one or two minims of the tincture of podophyllin may be given two or three times a day. Peristalsis can be encouraged by abdominal massage along the colon, in a circle round the umbilicus, for five or ten minutes three times a day. The skin should be rubbed with oil to prevent excoriation. During the first year the palm of a warm hand should be used.

After that age the finger tips may be applied along the course of the large intestine, from the cecum to the sigmoid flexure, and no oil need be used. Soap suppositories are comparatively harmless, and consist of one grain of soap to five minims of oil of therobroma. They should be well oiled before insertion, and used night and morning. Small glycerine suppositories, gluten suppositories, or a simple cone of oiled paper are of similar value. If immediate relief is needed, from one-half to one drachm of glycerine in half an ounce of water should be injected into the rectum; it acts quickly and efficiently. Enemata of one-half to one ounce of cold water, soap and water, salt solution, or olive oil are useful. After the age of two years, medicated suppositories, consisting of 1-24 to 1-12 of a grain each of aloin, extract of belladonna, and extract of nux vomica, may be used night and morning. The continued use of suppositories or injections, whether of soap or glycerine, is not advisable, for it may set up catarrh of the rectum.—*Ther. Gazette*, November, 1907.

CYSTOID CICCATRIX FOR THE CURE OF GLAUCOMA.—Heath reports some results of experiments of septematically incarcerating the iris in human glaucomatous eyes.

The incision at the required point from the margin of the cornea, the iris making a bleblike fistula lined with pigment epithelium which reaches into the subconjunctival connective tissue. This fistula he has demonstrated anatomically in one case, and he seems to consider it the feature of the cure, but he says the incarceration of the iris can maintain normal tension without its formation, though less surely, perhaps, through communication of the uveal and subconjunctival vessels and lymphatics. He has performed iridencleises antiglaucomatosa forty-one times. In thirty-five cases permanent normal tension was attained. If the anterior surface of the iris enters the sac, the posterior forming a blind sac, the result is not so good.—*The Homœopath Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

ADRENALIN AND COCAINE FOR ENUCLEATION OF THE EYE.—Professor Siegrist (Berne) makes the following observations on local anæsthesia for the enucleation and evisceration of the eye:

After the conjunctiva has been anesthetized by the instillation of a two per cent. sterilized solution of cocaine, to which several drops of adrenalin have been added, he seizes the conjunctiva bulbi, including the capsule, above, below, nasal and temporal, with forceps, drawing it somewhat forward, and introduced the bent points of the syringe into the fold of the mucous membrane with the concavity toward the bulbus, and is thus enabled to introduce the point between the bulbus, as far as the point of entrance of the optic and ciliary nerves. Thus he is enabled to quickly make four injections, above, below, nasal and temporal, of 0.75 c.c. in each instance of a two per cent. solution of the anesthetic, in the vicinity of the entrance point of the ciliary nerves. One or two minutes after the injections one can begin the enucleation or evisceration. If the injections have been made properly, the patient does not experience the least pain during the operation, no matter if the eye is sensitive to pressure or greatly inflamed.

This method of local anesthesia takes the place of general anesthesia, and is much more simple and not so dangerous.

WILLIAM SPENCER, M. D.

TREATMENT OF ACUTE INCARCERATION OF THE IRIS.—Dr. Dunn, of Richmond, reports a case of traumatic rupture of the cornea in a child. After the anterior chamber had cleared the iris was found extensively caught in the wound, but not protruding. No attempt was made to reopen the wound, nor to prolong the use of atropin to drag the iris out, but with a keratome, a large section was made in the cornea somewhat removed from the wound and then with a narrow iris spatula inserted into the anterior chamber the adherent iris was gently pulled free. An atropin salve was then used. The result was perfect; the iris round and uninjured.—*The Homœopath. Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

RECENT THEORIES AS TO THE CAUSE OF GLAUCOMA.—According to Schoen, of Leipzig, the real cause of the increased tension is the loss of support of the ciliary muscle and its tendons, thereby permitting the intraocular pressure to be exerted directly upon the sclera and the tension then becomes perceptible to the touch.

He considers the degeneration of the ciliary muscle to be the missing link explaining glaucoma simplex. The result of Schoen's researches is not a favorable one when considered from a therapeutic view point. If the disease is dependent upon a degenerative change, what hope is there of a cure in any well established case? On the other hand, if this theory becomes an established fact, we may foresee this tendency and possibly do something to prevent or delay the progress of the disease in the early prodromal cases.

Wahlfors considers hemeralopia as the first evidence of the beginning glaucomatous process, and recites a case where it was present five years before other symptoms of simple glaucoma. Hemeralopia is not always noticed by glaucomatous patients, because so slight it is often overlooked while confined to the periphery. The cause of the hemeralopia is a functional disturbance of the rod and cone layer of the retina due to imperfect nutrition, and as the vessels of the choroid supply nourishment to the outer layer of the retina we must look to the choroid for the preliminary cause of simple glaucoma. Reduction of light sense in simple glaucoma is a symptom generally overlooked.

It was first noticed by Faerster, and later emphasized by Mauthner. It is, however, often the symptom that calls patients' attention to this affection, and may appear years before the other symptoms of glaucoma, being present while the central and peripheral field of vision and tension are normal.—Dr. A. B. Norton, *The Homœopath. Eye, Ear and Th. Jour.*

WM. SPENCER, M. D.

DERMATOLOGIC DON'TS.—L. Duncan Bulkley, in the *Therapeutic Gazette*, publishes a most interesting and instructive lecture, which he delivered before physicians at the Skin and Cancer Hospital, at New York, and which he entitled, "Errors in the Diagnosis and Treatment of Diseases of the Skin; Don'ts in Dermatology." In a very excellent recapitulation,

Bulkley, summarizes as follows, which more than gives a clear understanding of the entire lecture:

1. Don't be too hasty in a positive diagnosis, certainly not from inspecting any single portion of an eruption; many a cutaneous disorder will present very different appearances in different localities.

2. Don't fail to examine each and every part affected, both for diagnostic and therapeutic purposes.

3. Don't forget that a patient may have several entirely different and distinct diseases of the skin at the same time, one of which may mask the other and confuse the diagnosis.

4. Don't neglect to get and keep a full written history of every case, recording symptoms at each visit, with the effect of remedies, and abbreviated copies of prescriptions given.

5. Don't fail to use a magnifying glass in observing and studying all lesions on the skin, however good the vision may be; it demonstrates details in eruptions which the naked eye overlooks.

6. Don't lose sight of the value of the microscope when there is any suspicion of a vegetable parasitic disease.

7. Don't forget that syphilis is a great imitator of many diseases of various organs, and that in most dermatologic statistics it forms about one-tenth of all cases.

8. Don't fail to establish the fact clearly whether syphilis has or has not, anything to do with the special case under consideration.

9. Don't exclude syphilis simply because of the absence of a venereal history, if the character of the eruption and sufficient history and other symptoms corroborate it.

10. Don't ignore the fact of the relative frequency of "syphilis in the innocent," and don't fail to search for the present or past point of entrance of the poison by means of an extra genital chancre, when other explanation is absent.

11. Don't overlook malarial infection or hereditary acquirement of syphilis, although the latter seems to be much less frequent than in years past.

12. Don't forget, in cases which are at all doubtful, to use the analytical method of diagnosis, noting down any and all eruptions which might look like the one under consideration, and then by a process of exclusion, eliminate one after the other, until the one is found which answers all or most of the requirements.

13. Don't forget, while studying the eruption in order to establish a correct diagnosis, that the patient commonly requires to be studied also, to enable one to understand the proper basis for treatment.

14. Don't forget, that in order to have a healthy skin, the body must be healthy, and all of its organs must perform their proper functions.

15. Don't forget that the urine affords an index, as to how the metabolic processes are performed; also that while there might be no albumin, casts or sugar found in it, its chemical constitution might be far from normal and indicate great metabolic errors which should be corrected.

16. Don't forget that the diet and hygiene may play a very important part, as contributory causes at least, in many eruptions, and that when they are faulty, treatment may be proportionately unsatisfactory.

17. Don't imagine that arsenic is a panacea for diseases of the skin, experience has shown that it has relatively little if any effect on most eruptions, although when combined with other proper treatment, it does often aid in restoring vital tone to many portions.

18. Don't simply give iodide of potassium when in doubt, or when a possible syphilitic nature of an eruption is suspected; if the eruption is due to syphilis, it should be so diagnosticated and efficiently treated with mercury also, even to the end.

19. Don't fail in your duty to syphilitics, both in guarding against the infection of others, and also in securing for them efficient treatment, sufficiently long to guard them against the serious possibilities of neglected syphilis.

20. Don't attempt too much local treatment in any of the lesions of syphilis, if the disease itself is sufficiently treated constitutionally, there is little need of other than the simplest local measures.

21. Don't be too vigorous or active with local treatment in any disease of the skin, unless you are very well acquainted with the remedies employed and feel that you understand the skin of the patient well.

22. Don't forget that much distress, and often harm is caused by too stimulating, and irritating applications, and that the skin is a delicate organ, when the epidermis has been removed or profoundly altered by accident or disease.

23. Don't suppose that any of the nostrums advertised for commercial advantage can have virtues above the remedies known to the profession, and do not employ them, as is often done, as a ready-made article, of hoped for value; whatever is known to be of value should, of course, be used by the profession.

24. Don't try to have too many remedies, or combinations of remedies, it is better to have a few which one knows how to handle well, than to have a vast number with which one is poorly acquainted.

25. Don't use nitrate of silver too freely or too frequently, on superficial sores; those of simple character can often be stimulated into an epithelioma of serious character.

RALPH BERNSTEIN, M. D.

THE RESULTS OF MODERN HYSTEROMYOMECTOMY.—Sarwey has critically reviewed the results obtained in 430 operations for myoma at Doderlein's clinic in Thubingen, and concludes as follows: The total mortality of modern operations for myoma may amount to 4 or 5%. The mortality from the vaginal method of operating is from one to two per cent. higher; the conservative operations also show an increase of about 1% as compared with the radical operations. 2. Myomata are very frequently associated with complications, depending partly upon anatomical conditions, especially in the adnexa. These complications frequently increase the danger to life and therefore demand operations. The harmlessness of fibromyoma of the uterus is in many cases only apparent and not real. This is especially true of the tumors of elderly women, in 80% or 90% of whom the climaxis is protracted beyond the 45th year, and in whom even after the climaxis the danger exists of secondary benign or malignant degenerations. Quiescence or shrinking of the tumor after the climaxis does not

so regularly occur as has been assumed. 3. The results of hysterectomy with removal of the ovaries are the best possible. The distressing symptoms of the climaxis the author has not observed so frequently among patients who do manual labor, as is ascribed by other writers; for such symptoms arise in only about one-third of the cases and are mild and transient; on the other hand such symptoms cannot always be avoided by retaining the ovaries while the technique to retain them may be more complicated, and the danger of secondary changes may arise. 4. Conservative operations may involve disadvantages which do not attend the radical procedure, such as the possibility of recurrence, fibroid development and associated danger. There is also the danger of uterine rupture at the site of the enucleation scar. As opposed to these dangers the assumed disadvantages of the radical operations, namely premature menopause and the loss of the power of conception, assume a secondary importance and are even welcomed by patients. 5. The indications for operative intervention being present, the welfare of these patients is best conserved as far as their ability to work is concerned, if whenever possible for anatomical reasons we do the radical operation, and if we reserve the conservative operation for those patients who expressly desire to retain the function of menstruation and the power of conception. 6. The substantial improvement of the results of the modern operations in connection to the dangers to those having fibroid tumors, justify us in extending to the indications for operation and not lose time with symptomatic treatment which may only permit the continuance of danger to life and the discomforts from the tumor.—*Arch. f. Gyn.* Vol. 79, 277.

THEODORE J. GRAMM, M. D.

THE TREATMENT OF ECLAMPSIA.—Esch (Berlin) writes the third article of a series which record the experiences with eclampsia at Olshausen's clinic since 1885. From this comprehensive report it is only possible to abstract some portions relating to treatment. The fact that the convulsions, which are the most serious symptom of the disease, mostly cease after emptying the uterus, have led a number of authors to advise this procedure. Zweifel, experienced a mortality of 32.6% from expectant treatment, and later from similar clinical material only 15% and 17% after active intervention and he now advises instant delivery.

Bumm's mortality amounted to 30% from the expectant treatment, and only 12% after immediate delivery, and thinks the mortality may be reduced to 5% if the patient receives treatment immediately after the first attack, when the pulse is still good and the lungs intact. This point is further discussed, and the author says it is a fact that in three-fourths of the cases the convulsions cease after delivery. Moreover, the sensorium rapidly clears, the ocular symptoms disappear, the œdema diminishes, the diuresis increases, and the amount of albumin lessens.

On the other hand, it must be remembered that immediate delivery is not a panacea in eclampsia, and forcible delivery with incisions of the cervix or the vaginal Cæsarian section is by no means a slight operation, and should only be done by an experienced operator. The fact is that delivery in eclampsia is a measure to be used according to symptoms existing in individual cases. The patient should be immediately delivered who has

deep coma, with snoring, rattling breathing, small, rapid pulse, and temperature elevation. The same is true of patients in deep coma, without previous convulsions, having jaundice and bloody urine and also in those first coming under treatment greatly weakened from previous convulsions. The same is true of old primiparæ and those whose urine contains much albumin and casts. But in cases where the labor pains have not at all or only recently begun, and when the general condition is good, it is advisable to wait. If the general condition becomes gradually worse, or the attacks multiply or an unusually severe attack occurs, though this rarely happens, delivery should be undertaken. The author does not favor the use of morphia or chloral, except when the patient is very restless. The hot pack is believed to be calming, but weakening. Sudorifics are not advised. Bleeding was frequently employed, combined with the introduction of a physiological salt solution.—*Zeitschr. f. Geb. u. Gyn.* Vol. 58, II.

THEODORE J. GRAMM, M. D.

THE RELATION BETWEEN SAPROPHYTIC AND PATHOGENIC STREPTOCOCCI.—Zangmeister and Missl have endeavored to determine the question whether the purely saprophytic streptococci represent a particular and harmless variety of streptococci, or whether they are identical with the streptococci of septic wound infection. About 50 cultures were used in the examination, which had been mostly obtained from the lochia, and some from a serious septic infection. Aided by tests relating to immunization, these micro-organisms were found to be identical. Some cultures which had a saprophytic existence in lochia were found to belong to the pathogenic variety. The authors found that all facultative and anærobic streptococci belong to one variety. From this two practical considerations appear: Firstly that the possibility exists of an infection from such streptococci which have temporarily existed as saprophytes, and secondly is demonstrated the possibility of immunizing against all forms of streptococci.—*Zeitschr. f. Geb. u. Gyn.* Vol. 58, 453.

THEODORE J. GRAMM, M. D.

ECLAMPSIA.—Moran (Washington) reports the experiences with eclampsia at the Columbia Hospital. In 2,035 obstetric cases there were 28 cases of eclampsia, or one in 72 confinements. The cases were equally divided among the white and colored races. Twenty-one were in primiparæ. 57% were antepartum; 25% were intrapartum; about 10% were post partum. At the 5th month of pregnancy was the earliest occurrence, and ten days after labor was the latest. In 26 cases the presentation was cephalic. Premonitory symptoms occurred in 23 cases. The mortality amounted to 7 women; 7 infants died within three days, 7 were still born, and one unknown. As a rule the convulsions ceased after evacuation of the uterus. The premonitory symptoms were usually headache, disturbance of vision, insomnia, precordial distress and vomiting, together with edema, particularly of the face and upper extremities, associated with high arterial tension, albuminuria, diminished excretion of the urine and urea. Of prognosis the author says eclampsia occurring during gestation or labor is more fatal than when it has its inception post partum. The temperature curve is an element of importance in prognosis. When it is high, and instead of

diminishing, rises progressively, it is of grave omen. Hypothermia is likewise of serious augury. The pulse is also a valuable criterion. When it is full and strong, and below 100, a favorable outcome usually results; if, however, it is weak, rapid, over 130, and increasing in frequency, with deepening coma, the case is likely to prove fatal. An interesting observation is that postmortem examinations of fetuses dying of eclampsia have revealed visceral lesions, particularly in the liver, very similar to those observed in the maternal organs.—[The treatment is discussed at length, but cannot be reviewed in a word.—*Amer. Jr. Obs.* Vol. 53, 609.

THEODORE J. GRAMM, M. D.

A CASE OF GONOCOCCAEMIA IN AN INFANT HAVING OPTHALMIA.—Hoch-eisen recites an interesting and not common case of an infant having gonorrhœal ophthalmia, in whom systemic infection took place. The infant was born of a mother in the last stages of tuberculosis, and on that account it was necessary to hasten labor. For the latter purpose a metrorrhyster was inserted to accelerate dilatation. On the third day after birth the child had a profuse catarrhal secretion, but not more copious than is often seen in the catarrhal conjunctivitis following the usual instillation of nitrate of silver. The purulent secretion diminished from hourly irrigation with boric acid solution, but the conjunctiva remained swollen and inclined to bleed from contact. On the eighth day a swelling was noticed about the right wrist and later the left hand was also involved. On the tenth day the preauricular lymph glands were swollen and soon showed fluctuation. The left gluteal region also had a localized infiltration. These swellings were without inflammatory redness and the child had no fever. Its nutrition, however, was considerably impaired. Gonococci were found in the conjunctival pus. On the fourteenth day the tendon sheath abscesses on the hands were incised and discharged yellowish pus, also containing gonococci, and the preauricular abscesses were also opened. By the twenty-fourth day the child's condition had materially improved, but a relapse occurred in about a week and a swelling formed over the left trochanter with deep fluctuation, and another swelling formed on the right hand. Both were opened, and then all metastases healed, especially after treating the child with daily hot baths. Gonococci were found in the pus and by culture and established the diagnosis. Other bacteria were not found in the pus, but a pure culture of gonococci was present. This diagnosis was also confirmed by the course of the disease; its benignity, the small amount of systemic disturbance, the absent fever, the slight tendency of the infiltrate to extensive suppuration, and the easy recovery, all being signs which Finger has described as typical of this infection.—*Arch. f. Gyn.* Bd. 79, 415.

THEODORE J. GRAMM, M. D.

PNEUMONIA AND DELIRIUM TREMENS.—“It must be constantly borne in mind that the sudden disturbance of the nervous system by the development of pneumonia in alcoholic subjects may be the cause of the appearance of delirium tremens. The question here is of overlooking the pneumonia. For safety, therefore, physical examination of the thorax should be made in all cases of delirium tremens occurring during the pneumonia season, or where a history of exposure is given.”—Dr. Robert F. Williams (*Old Dominion Jour. of Med. and Surg.*).

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY JOHN HUTCHINSON, M. D.

THE X-RAY.—That the possibilities of the Roentgen ray have not been realized has recently been demonstrated by F. Dessauer before the German Society of Physics. As an agent for diagnosis the ray has been to a large extent confined to the treatment of fractures. As a therapeutic agent its usefulness is peculiar to the surgeon in his handling of superficial conditions. The limitations of its use in each field has been confined to its capacity for penetrations. For cranial work it has been unsatisfactory, and only in the hands of the most expert have anything like good results been obtainable, the difficulty being in the bony obstruction met with. The Dessauer rays, however, have an extraordinary penetrating power, piercing the bone almost as readily as the flesh, so that a radiograph of the hand made with these rays showed hardly an image of the bones.

Then, too, from a therapeutic standpoint there is a great advantage in their use. With the ordinary X-ray the energy at the surface of the body is one hundred times more intense than at a depth of five millimeters in the tissues. With the Dessauer ray the depth of penetration is multiplied manifold, so that it looks as though a decided advantage in electrotherapy had been made by Prof. Dessauer, and the world is indebted to him for it.—*Medical Century*.

THE TREATMENT OF AFFECTIONS PECULIAR TO SINGERS AND SPEAKERS.—George B. Rice, M. D., Boston. I have no new remedies to exploit; all of those which I will mention are old. It seems to me that we shall accomplish more by thoroughly understanding the well proven remedies than by searching for the new and less tried ones. I am sure that in my, perhaps rather recent, earnest efforts to use the standard homœopathic remedies with more skill and intelligence, I have often been surprised to see what they will accomplish.

In the acute affections of sudden onset, a close distinction should be made between aconite, belladonna, gelsemium, hyoscyamus, apis, rhus, bryonia and arsenicum, and this properly selected remedy can be quickly followed by iodide of lime, hepar, phosphorus, stannum, ipecac, selected also with equal care. In the nodal conditions thuja, locally and internally, is frequently indicated.

Remedies suitable for the relaxed and strained voice require more careful selection. Among these are graphites, causticum, populus, kali phosphoricum, senega, selenium and argentum nitricum.

In the neurasthenic it is still more difficult to prescribe adequately. It is impossible to give even a few remedies from which to make a list. I have received much aid in the selection of the proper remedy, as I presume have many of you, by a study of the list of remedies for The Vocal Troubles of Singers as given by the late Prof. Ivins in his book on *Diseases of the Nose and Throat*, page 383. Those who do not own the book would be more than repaid for its purchase by this chapter alone.—*The Homœopathic Eye, Ear and Throat Journal*.

[It is a most interesting fact that often will be found associated with some vocal disorder or defect, an abnormal condition elsewhere that calls for the same remedy as the throat does. This adds greatly to the value of the prescription. By the way, *Mangamun* has a wonderful sphere in respect to the singing voice.—J. H.]

BLINDNESS FROM A LARGE DOSE OF QUININE.—The *St. Louis Medical Review* reports that a patient of Dr. H. W. Woodruff had thirteen months previously received 195 grains of quinine in four days. Total blindness of sudden onset lasted four days, then vision gradually returned, and has become 20-60 and 20-40, although there is a marked atrophy of the nerve heads, with typical concentric contraction of the fields.—*The Medical Times*.

TUBERCULAR ADENITIS.—Stewart. Arsenicum iodide is applicable to the case that has general tubercular adenitis or if the abdominal glands alone are the point of invasion; there is emaciation, malnutrition, offensive diarrhea and great prostration.

Baryta carb. is suited to the case that is just waiting to receive the infection. There are adenoids, enlarged tonsils, faulty respiration, poor sleep, bloated abdomen, atrophy of the extremities, with the physical and mental powers below the normal. If infection has taken place, the glands are hard and indurative with but slight tendency to suppurate and but little pain.

Calcarea carb. is best suited to the case that is fair, fat and flabby, perspires about the head, with low temperature of body and extremities. The child bears its suffering with little complaint, pleasant, passive, patient; glands sore with tendency to suppurate and discharging a thin odorless pus. There is bad assimilation with deranged bowels and great susceptibility to cold. This is perhaps more often indicated than any other remedy as it seems especially suited to the child with a tubercular diathesis.

Remembering the danger from openings in the skin graphites is suggested. It has eczematous eruptions with fissures and cracks in flexures of joints. All the discharges from the body are offensive, the glandular swellings are soft and indolent.

If the glands are actively inflamed and threaten immediate suppuration or if suppuration is established and the indurated glands are very sore and painful, *hepar* will relieve.

The iodine patient is dark, emaciated, thin and scrawny, with ravenous appetite. The glandular swellings are general and the glands are of ivory hardness.

Mercury is indicated in the case that runs an acute course, is accompanied by much pain which is worse at night. Perspiration without relief, irritation of mucous membranes with bloody discharges, high temper, irritable.

Silicea may be called for in profuse, thin excoriating offensive discharges. The system tolerates the condition with little resistance. Sinuses and excessive granulations are present.

Sulphur for the child that is prematurely old-looking, many varieties of painless eruptions, disordered bowels, constipation or diarrhea, mental and bodily indolence.—*N. A. Jour. of Hom.*

PRESCRIBING BY AID OF THE REPERTORY.—Myra R. Hewitt, M. D., Oshkosh, Wis. In order to use the repertory to the greatest advantage it is necessary to have the case properly tabulated, and if especially difficult, or of long standing, it is better that the case be written out at length. First, write a full description of the patient as briefly as possible, or at least make a mental tabulation, describing all general symptoms that belong to the patient, then all the general disease symptoms, such as would be necessary to make a diagnosis, with locality, direction, and character of symptoms, sensations and modalities, that particularly belong to the case as guides to the individual remedy, the similimum in the case. Have symptoms as nearly as possible in the language and style expressed by the patient. Then go over and carefully study the case, selecting some of the most prominent symptoms in the order of their importance, then examine the section or sections where the symptom belongs in the repertory, and find the one remedy that is prominently indicated, or if two or more remedies stand equally prominent then take the next important symptom in the case and then another until the one remedy is found that goes farthest through the symptoms, then compare that remedy with all the other symptoms and modalities in the case with the repertory, through each section, and the provings in the materia medica, and see that the symptom is expressed or implied in the proving. Next in order should follow the particulars. First, the mental symptoms, then those relating to anatomical locations. This may appear to be a very tedious way of doing business, and to require a great amount of preparation to be able to carry out this method of selecting the remedy, but with practice it soon becomes easy and is quickly done.

Let no physician ever consider that it is child's play, a small business, or beneath his dignity to study his case carefully; thinking people like to see a physician study the case. Let the physician consider that there is scarcely a book published that does not have an index to tell where to find everything that is in the book. Large libraries have indexes to refer to where every book can be found, and this index adds greater value to the library or the book, and in the same way the index to the symptoms and the Materia Medica is really one of the most valuable adjuncts to it, without which no physician can say that he does successfully find a right remedy in all cases. Although the task be greater to accomplish this work the results are just so much the more gratifying.

I append a sample case worked out by the repertory.

This acute case is purposely chosen for its simplicity, and to illustrate the special value of the repertory in working out a case having few symptoms:

Mrs. ———. Abortion at two months with placenta grown fast upon whole upper surface. 1. Mental symptoms, great anxiety.—*Acon., ars.,*

aur., bell., bry., calc., cann. ind., carb. veg., dig., phos., puls., rhus tox., sabina., secale., sulph., verat.

2. Evening.—Ars., bell., bry., calc., carbo. veg., dig., phos., puls., sabina, sulph.

3. Before Midnight.—Ars., bry., carbo. veg., phos., puls., sabina., sulph.,

4. Tearful and timid, anxious about future.—Acon., bry., calc., dig., phos., puls., rhus. tox., sabina, secale., sulph., verat.

5. Restlessness, evening, in bed.—Phos., sabina.

6. Headache, afternoon.—Acon., ars., bell., bry., calc., carbo., veg., dig., phos., puls., sabina, secale., sulph.

7. Appetite wanting, desire acids.—Ars., bell., bry., calc., carbo. veg., dig., phos., puls., rhus. tox., sabina., secale., sulph.

8. Metrorrhagia, thin fluid blood, mixed with clots.—Bry., sabina., puls., secale.

Metrorrhagia, active.—Bell., phos., sabina.

“ painless.—Ham., sabina.

“ in paroxysms.—Puls., sabina.

“ profuse.—Phos., sabina.

“ on motion.—Bry., sabina.

“ from retained placenta.—Bell., puls., sabina.

—*The Clinique.*

OPSONINS IN SURGERY.—By Dean T. Smith, M. D., Ann Arbor, Mich. I will review briefly the theories on which the opsonic treatment depends that we may have a working basis for our discussion. These theories depend on two facts: First, the leucocytes, under favorable conditions, will destroy many of the various forms of pathogenic bacteria (phagocytosis). Second, the power to destroy these bacteria depends on a quality of or substance in the blood that so acts upon them they may become victims of the phagocytes. When a few drops of blood serum from a normal individual is mixed with a culture of bacteria and properly treated, the leucocytes will take up and destroy a certain number of the germs. This number varies with the different bacteria, but for each species is found to be nearly constant for all healthy individuals. This number gives the opsonic index or the average for the supposed healthy individual. When the leucocytes fail to take up the number for a certain kind of bacteria, the index is low for this species. The index is often found to be low when a patient is suffering with a bacterial disease, especially of a local or sub-acute character. If his index can be brought up to normal or above, the bacteria are soon destroyed and the disease manifestations disappear. It is found that injections of preparations of cultures of the bacteria that are causing the disease symptoms will raise the index. The material used is called a vaccine, and each species of bacteria has its own vaccine. The bacteria are killed in its preparation. To illustrate, it is often found that the opsonic index is low for the germ, the staphylococcus aureus, when a person is suffering from boils. An injection of staphylococcus vaccine will raise the index and cause the boils to vanish. The same is held to be true for other bacterial diseases. So much for the definitions. Now a few words as to the relation of opsonins to homœopathy.

To Sir A. E. Wright, of England, is due the promulgation of this theory

in its present form. I say in its present form, because I regard Wright's deductions but the old homœopathic idea expressed in modern laboratory terms. We have always held that back of the pneumonia, of the tuberculosis or other infectious disease there is in the organism a lowered vitality or resistance, a psora, some lack in the individual without which the the specific bacterial disease could not develop. Wright is showing us just where this lack, this lowered resistance is, what it is and how to measure it. More than that, he is showing us one way to treat it, and apparently to treat it successfully. In the application of the remedy Wright is like us. We have always contended that the symptoms that diagnose the disease are not the most important in selecting the remedy, but the peculiar characteristic symptoms, those that indicate the dyscrasia back of the disease. Wright does not note the degree of fever, character of cough, or physical symptoms of the lungs. He finds the germ that is acting, determines its index (the patient's dyscrasia), and makes this the basis for treatment.

In the selection of the remedy Wright keeps very close to the homœopathic principle. First, as to the size of the dose, he says: "For myself I am day by day more impressed with the fact that the machinery of immunization can be brought into action by very small stimuli, and that it can very easily be overtaxed. In accordance with these facts I regard it a matter of great moment, especially in connection with immunization against tubercle, to employ in every case the smallest dose which will elicit a satisfactory response; to repeat the dose only when the effect of the preceding inoculation is passing off, and to increase the dose only when it becomes clear that the dose previously employed is ceasing to evoke a sufficient immunizing response. Acting in accordance with this principle I now begins with a quantum of tuberculin corresponding to not more than 1-1000th milligramme of the tubercle powder, and now never advance to doses larger than 1-600th milligramme." The dose given according to Koch's method is sometimes 10 milligrammes.

I believe the homœopathic remedy acts the same as Wright's vaccines. It is a recognized fact that in most bacterial diseases the toxins, not the bacteria, produce the disturbed function. Wright makes use of these toxins in his vaccines and applies them in the treatment of diseases, for the relief of the symptoms that are caused by the same kind or identical poisons. It is to me a reasonable proposition that two poisons that produce similar symptoms do so by acting on the same cells in the same way. If one of these poisons introduced into the system "at suitable intervals and in suitable quantities" will develop an immunizing agent, an opsonin or an antitoxin, why not the other? to the extent that it acts exactly similar. To me, if we do not split hairs on our definitions, the opsonic theory is but a corollary of homœopathy, or homœopathy but a corollary of the opsonic theory, the crux of the matter being the degree of the similitude of the drug, "the suitable dose and the suitable interval."—*The Clinical Reporter*.

FLEAS as carriers of plague have been suggested and strenuously denied in language far from polite. It now seems that the flea is the guilty party after all, it illustrates a very human fault of entering into heated dis-

cussions before there are any facts upon which to base an argument. The government of British India appointed a commission to try the flea, and it is reported to have found him guilty. Extensive experiments left no doubt of the fact, and, moreover, the theory is announced that plague might really be a disease of fleas, higher animals being incidentally infected. It was thought at one time to be a rat disease, as it appeared in them long before men were infected in any locality. It is known, nevertheless, that rats do carry it from place to place, the flea merely transferring it from one animal to another. Perhaps the flea may be found to be a true carrier, not really diseased by it nor acting as a medium of mechanical transfer, like the flies in spreading infection by their legs.—*Exchange*.

HOMŒOPATHIC THERAPEUTICS IN THE TREATMENT OF DELICATE CHILDREN.—Alice I. Ross, M. D., Whittier, Iowa.—In the acute illness of these children I would say just a word to the young practitioner. Don't let a desperate case stampede you. Suppose the temperature does run up to 106 and the tiny pulse is too fast to count and the shadows of death seem to be settling over the little face. Sit calmly by the bedside and think and watch. Somewhere in the totality of the symptoms lies the key to the whole situation. Somewhere in the pages of our matchless *Materia Medica* is the record of the remedy that will change this picture of sorrow and suffering to one of joy and health as quietly and easily as the sun floods the earth after an April shower.

The problem that concerns us is to bring these two pictures together and match them as perfectly as we can. To accomplish it one needs the skill of an artist, unbounded faith in our remedies and patience and love for humanity akin to the Divine.

If the little one must die the homœopathic remedy is the best thing I know to relieve suffering, but in nine cases out of ten they will not die.

It pays to be a student of *Materia Medica*. Our present *Materia Medica* is imperfect, no doubt; it is young yet. But in its pages as it now exists is enough of well verified truth to employ the life-time of a vigorous intellect in its mastery, and skillfully applied, to cure the vast majority of human ills and relieve the rest.

I have no quarrel with scientific medicine. It is well to study diagnosis and pathology and microscopy and all the rest, only don't let it destroy your ability to read correctly the symptoms of your patient or abolish your faith in and knowledge of *Materia Medica*. Don't become so interested in the construction of the woodchuck's burrow that the animal himself slips out and is gone before you realize that it was the woodchuck and not the hole that was the object of your search.

The remedies which have been most often indicated in my practice are the calcareas, the kalis, the mercuries, sulphur, silica, the anatomical preparations, the nosodes and sometimes where these do not truly and correctly meet the disease picture, one which we are apt to regard as superficial and ephemeral in action as *cina* or *chamomilla* will clear up the symptom picture surprisingly when well indicated.—*Iowa Homœopathic Journal*.

POISONING BY DIGITALIS.—From foods and beverages rendered poisonous by way of "improvement," to drugs used with poisoning effects, is but

a small step. And in this connection digitalis, in our opinion, comes out *facilis princeps*. We believe that the number of patients hurried out of existence by the injudicious use of digitalis by their medical attendants is enormous. It is given in the hope of prolonging life by strengthening the heart, but in how many cases does it really do so? In the majority of cases its action is the exact opposite. Some slight fictitious sense of well-being or strength may be experienced at first, but after this a feeble heart rapidly exhausts itself from over stimulation, and the patient dies days or weeks sooner than would be the case were digitalis omitted. We assume in these cases that death is inevitable, but does not the same thing occasionally occur when the heart, if left alone, or treated homœopathically, would recover? We fear that this cannot be denied.

SUDDEN DEATH FROM CHANGE OF TREATMENT.—It is a common event for patients gradually sinking from cardiac failure to try a change of treatment in the hope of prolonging life. When this occurs in those who have already been drenched with digitalis, and skillfully used homœopathic remedies are substituted, life is frequently prolonged, sometimes for years. But in the opposite case the results are usually disastrous. A flagging heart that has been accustomed to the gentle influence of homœopathically acting drugs, cannot stand the violent action of digitalis in the usual doses. Rapid exhaustion and death is the frequent consequence of such ill-judged changes. It occasionally happens to homœopathic practitioners that, yielding to the persuasion of sceptical friends, such a change is made, and the physician—under whose care all that drugs, carefully and scientifically administered, can do for a feeble heart, has been done—is dismissed. The result is usually a foregone conclusion. In two or three weeks a death announcement ensues. We have known several such cases, in which, had homœopathic treatment been continued, the expectation of life was several months at least. Digitalis poisoning terminated their histories shortly after they fell into allopathic hands.—*British Homœopathic Review*.

METABOLISM.—By Dr. J. Burke, Manitowoc, Wis. In the treatment of disease, the different grades of metabolism must be taken into consideration. All intrinsic and extrinsic agencies modifying the physiology must be taken into account; as hereditary cell construction and function; habits of physical and mental energy; hours of labor and intervals of rest; amount and quality of food eaten; the chemical and physical construction of the fluids imbibed; the moral restraint of which the individual is capable; the avoidable and unavoidable adverse circumstances with which he is surrounded in his daily life; the readiness with which the adverse conditions can be removed; and the best means at our command to ameliorate the consequences of irremovable causes of unphysiologic living.

Health is a relative condition; perfect health is a rare quality of human existence. The use of alcoholics and tobacco, so widely prevalent, both tend to set up an artificial nutrition; the habits of dissipation generally attached to these two prevalent vices further mitigate against perfect nutrition. The avidity of alcoholic beverages for water seriously hampers digestion by disarrangement of the normal environment of the digestive ferments; besides, the alcohol is a protoplasmic poison. The habitual use of

alcoholic beverages consequently compels the digestive ferment-producing glands to take up an artificial chemical and physical construction, with a consequently artificial production of ferment quality and quantity. Abnormal ferments in their efforts at digestion of the proteid food result in the reversion of this kind of food into a variety of amino-acids, incapable of being synthetized into homologous protein. (All proteid food must be reverted into its ultimate component units and by a reversion of the ferments brought about by normal environments; the same ferments reconstruct these units into the complexity termed homologous protein; a break in the chain of normal ferment action, results in but a minor portion of the proteid food becoming homologous protein-pabulum proper to normal transmutation into normal human tissue.). Both the homologous and heterologous protein are absorbed into the general circulation, where the blood and tissues vicariously act on it in the effort to make of it the homologous variety of protein; but the vicarious action fails, for the greater part, and the foreign protein is stored up in the tissues till some chemical, physical or medical force resolves it out of the tissues, back into the blood and fluids, where, if it meets and chemically combines with a pseudo or other incomplete chemical affinity, a leucomain (toxin) is formed, the toxicity of which depends on its stage or morphology toward becoming a complete excretory product.—*The Medical Forum*.

A RIFLE-SHOT PRESCRIPTION. In the spring of 1900, Mr. D. B., age 42, sanguine mental motive temperament, a prominent railroad official, came to my office the picture of despair. He was suffering with a stomach trouble of several years' standing, for which he had been treated by different home physicians and specialists in Cincinnati. He was finally recommended to consult a very eminent specialist in Philadelphia, which he did, with no improvement, and as a last resort, he concluded to try homœopathy.

He gave the following history: Health good until about ten years previous except a profuse foot sweat for which he did nothing; was taken with repeated attacks of intermittent fever while he lived on the Wabash River, for which he received the usual old school treatment; following this there was an eruption over his entire body, which was treated with some kind of ointment; shortly he began to have trouble with his stomach, everything he ate would cause an uneasy pain as if a rock was in stomach, at times so severe, he did not know what he was doing; so changeable in mood, very amiable when not suffering, and when in pain would become furious, and had on several occasions while in this condition discharged men, and within a few hours would apologize and put them back to work.

All symptoms pointed to pulsatilla, which he received with instructions to report in ten days. He came back furious, and wanted to know what I had given him that medicine for; showing me several sores on right leg and scratching them at the same time. I inquired about his stomach, and he looked at me in amazement. He had forgotten his stomach trouble since this darned thing came on his leg, which he kept on scratching. I gave him a liberal allowance of placebo and corn starch to dust the sores, with instructions not to apply anything else. I assured him that the eruption would prove a blessing to him in the end, that his trouble was internal

and had to come out. A week later he called again, by which time the sores had formed into several ulcers as large as a half dollar, discharging a yellowish ichorous puss; less itching, the foot sweat returning, (which had disappeared) and his stomach giving him no trouble.

With another supply of placebo, and with request to return in another week, he came back feeling much better, more cheerful, the ulcers about the same and the foot sweat more profuse and smelling very bad. I then gave him silicea, which I repeated several times during the summer, when needed. All the while kept him well supplied with placebo *to keep him from taking anything else*. He gradually grew better, gained flesh, ulcers healed and the foot sweat disappeared.—By F. C. Askenstedt, M. D., Louisville, Ky., in *Medical and Surgical Reporter*.

[The italics are ours.—Ed.]

ETIOLOGY OF SMALL-POX. The work of Dr. Councilman and his associates in connection with small-pox has reached a temporary termination by the publication of the final results in a recent number of the *Journal of Medical Research*. Outsiders are now in a position to fairly examine the detailed accounts and accept or reject the conclusions therein reached. It will be remembered that in the Boston epidemic of 1901-02, much work was performed in the careful study of over fifty small-pox patients. Soon after a preliminary report was issued in which it was stated that a peculiar parasite called the *Cytoryctes variolæ* was the probable etiologic agent. As the disease is one to which the ordinary laboratory animals are not susceptible, and as the cases among human beings became very few, the earlier work was brought to a close. It is known that monkeys can contract the disease under certain circumstances. Therefore, for the proper investigation of these parasites, Drs. Brinkerhoff and Tyzzer were sent to the Philippine Islands where variola virus, vaccinia virus, and monkeys could all be readily obtained. To summarize the results of their investigations, briefly, there are found, situated in the epithelial cells associated with the small-pox and the vaccinia lesions, definite extraneous organisms. These structures vary somewhat in form, there being an evident developmental cycle from small, simple forms to larger more complex ones which finally segment and form more small ones. In both vaccinia and variola these bodies are intracellular, but in variola another form is found, intra-nuclear, corresponding to a sporoblast producing spores. No nuclear material has yet been demonstrated in the bodies. That they are not degenerative forms, as some have claimed, seems assured. They occur in cells otherwise perfectly normal; they show progressive change from one form to another, and they have a distinct life cycle. As they are uniformly found in the small-pox lesions, as they are found in vaccinia after inoculation where they did not occur before, and as they are never found elsewhere, the conclusions of the investigators certainly seem justified. And so we may assume, apparently with all safety, that the cause of small-pox vaccinia has been discovered, and that that cause is the *Cytoryctes variolæ*.—*The New England Medical Gazette*.

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CONTRIBUTORS TO VOLUME XLII.

- Ashcraft, Leon, T., A. M., M. D., Philadelphia.
Askenfeldt, Fritz C., M. D., Louisville, Ky.
Axford, Walter J., M. D., Philadelphia.
Baker, W. F., M. D., Philadelphia.
Bayley, Weston D., M. D., Philadelphia.
Bernstein Ralph, M. D., Philadelphia.
Betts, B. Frank, M. D., Philadelphia.
Betts, Norman, S., M. D., Philadelphia.
Bigler, C. Albert, Jr., M. D., Philadelphia.
Birdsall, Gregg Custis, M. D., Washington, D. C.
Brown, D. Dyce, M. D., London, Eng.
Caldwell, Frank Eddy, M. D., Colorado Springs, Colorado.
Carleton, Sprague, M. D., New York City.
Carpenter, W. B., M. D., Columbus Ohio.
Chase, Theodore L., M. D., Philadelphia.
Copeland, Royal S., M. D., Ann Arbor, Mich.
Dale, Harvey B., M. D., Oshkosh, Wis.
Dearborn, Fred. M., M. D., New York City
Delamater, N. B., M. D., Chicago.
Deming, Ralph, M. D., Philadelphia.
Douglass, Malcolm, M. D., Baltimore, Md.
Elliott, John Dean, M. D., Philadelphia.
Fornias, Edward, M. D., Philadelphia.
Fox, Chas. R., M. D., Philadelphia.
Gay, H. M., M. D., Philadelphia.
Golden, G. Morris, M. D., Philadelphia.
Goodno, Wm. C., M. D., Philadelphia.
Gramm, Edward M., M. D., Philadelphia.
Gramm, Theodore J., M. D., Philadelphia.
Guernsey, Joseph C., A. M., M. D., Philadelphia.
Haman, C. R., M. D., Reading, Pa.
Haman, Wm. A., M. D., Reading, Pa.
Hicks, W. L., M. D., Philadelphia.
Hooker, Edwin Beecher, M. D., Hartford, Conn.
Hutchinson, John, M. D., New York City.
James, Jno. E., M. D., Philadelphia.
Korndoerfer, Augustus, M. D., Philadelphia.
Laidlaw, Geo. F., M. D., New York City.
Lane, N. F., M. D., Philadelphia.
Lyle, Howard, M. D., Philadelphia.
Mills, Walter Sands, M. D., New York City.
Mitchell, R. E., M. D., Middletown, N. Y.
Neatby, Edwin A., M. D., London, Eng.
Nesbit, Edwin Lightner, M. D., Bryn Mawr, Pa.
Northrop, H. L., M. D., Philadelphia.
Ostrom, Homer T., M. D., New York City.
Price, Eldridge C., M. D., Baltimore, M. D.
Quackenbush, Frederick B., M. D., Philadelphia.
Raue, C. Sigmund, M. D., Philadelphia.
Roman, Desidero, M. D., Philadelphia.
Runnels, O. S., M. D., Indianapolis, Ind.
Schull, J. Hubley, M. D., Brooklyn, N. Y.
Searle, W. S., A. B., M. D., Brooklyn.
Seibert, Wm. A., M. D., Easton, Pa.
Shedd, P. W., M. D., New York City.
Snader, E. R., M. D., Philadelphia.
Spencer, William, M. D., Philadelphia.
Stanton, Lawrence M., M. D., New York City.
Sutherland, John F., M. D., Boston, Mass.
Van Baun, Wm. B., M. D., Philadelphia.
Van Lennep, Gustave A., M. D., Philadelphia.
Weaver, H. S., M. D., Philadelphia.
Wells, G. Harlan, M. D., Philadelphia.
Wilcox, Sidney F., M. D., New York City.

